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Immunization and The Doctor's Public Image

At first glance, there seems to be no problem with regard to immunization and the physician's public image. Is it not through immunizing injections that modern medicine has accomplished some of her noblest victories, having conquered smallpox, diphtheria, and typhoid? Is it not because of this means that victory over poliomyelitis is nearly within man's grasp? Thinking lay persons admire medical researchers for having developed powerful vaccines and toxoids, and are grateful to clinicians for having made them available to the people.

In a painful affliction or injury, an emotion—the dislike of pain—brings the patient to the doctor. If a patient notices an alarming sign, for example, abnormal bleeding or a lump, another emotion—fear—makes him seek advice. Not so in immunology: there the motivating force is coercion, springing either from the patient's own reason and conscience or from rules or laws. People dislike coercion. Thus, grumbling and fault-finding are likely to result.

People know they have to pay for relief of discomfort (pain or fear), at least while they are uncomfortable and immediately thereafter. Only the wise, however, pay willingly for future protection. A primitive person will say, "I didn't want these shots in the first place. Why should I pay for them?" He resents expense, especially expense forced on him by his conscience or by law.

This editorial is concerned with one situation that often makes potential grumblers vent their feelings: the lack of uniform immunization practices among physicians. For example, a doctor may tell Mrs. Jones that her children need booster shots for tetanus,

poliomyelitis, and typhoid once a year. If her good friend, Mrs. Smith, quotes her doctor as saying that boosters for tetanus and typhoid are needed only once every four years and that nobody knows for certain when poliomyelitis boosters are required, the "good image of medicine" is in for trouble.

If Mesdames Jones and Smith are intelligent and full of good will toward medicine, they may say, "These things are scientifically unsettled. It seems there are several schools." They would be close to the truth.

If the ladies are less well informed, but basically benign, they perhaps will say: "One of our doctors isn't keeping up well. After all, in this scientific day and age there must be precise rules. Doctors should be better informed and should practice scientific medicine."

If Mrs. Jones is just waiting to find a cause for grumbling, however, she will say, "Here we go again! The doctor knows good and well, my kids don't need boosters every year, but he is after an easy buck!" Thus two well-meaning medical practitioners may create ill will for themselves and for all physicians. They probably are unaware of the source of trouble, and are unable to correct it by themselves.

What can doctors do to prevent such damage to the public image of medicine?

They must eliminate what confuses the public. People do not take well discrepancies in medical practice and uncertainty in physicians. They want firm guidance. Although experts differ about the best schedules for immunizations, their differences are minor. I use the word "experts" advisedly, because none but an immunologist is competent to devise an immunization schedule of his own. When competent authorities suggest divergent schedules, all of the suggested schedules may be good. To avoid confusing the people, however, doctors must settle on one schedule only and must stick to it until new evidence makes revision advisable.

Are standard immunization schedules available? They are, for children up to 16. The American Academy of Pediatrics has published a schedule in the so-called "Red Book", the Report of the Committee on the Control of Infectious Diseases. Copies may be obtained for $1 through the Academy's secretary, Dr. E. H. Christopherson, 1801 Hinman, Evanston, Ill. Leading physicians have developed this schedule. It cannot be far from the best available today. Doctors should follow it to the letter and, when the Academy revises it, should adopt the revisions.

An authoritative schedule for people older than 16 is badly needed. An organization of internists, such as the American College of Physicians, would render a distinct service by developing immunization schedules for adults, and by revising them from time to time.

Not only would general adherence to the Red Book schedule and to a similarly authoritative schedule for adults reduce confusion and suspicion among the people; it also would encourage doctors to adhere to the best immunization practices. Those who tend, from ignorance, to underimmunize would readily follow such schedules; those who tend to overimmunize would quickly adopt proper standards, lest medical and lay persons criticize them.

As long as there are no authoritative national standards for adults, physicians in each area should work out an immunization schedule for adults that reflects best local practice. It should be published in the local medical society's bulletin, and the society's members should follow it. There should be nothing compulsory about the schedule, however. Most doctors would gratefully accept such standards, just as they follow accepted standards of practice in other fields of medicine.

—HEINRICH LAMM, M.D.,
Harlingen, Texas.

Improved treatment and improved outpatient facilities made for more effective use of hospital beds in England last year, Ministry of Health reports. Waiting lists were reduced by 10,000—*now stands at 466,000.*

—*The AMA News,* Sept. 18, 1961.

The Doctor-Patient Relationship

The advances in medical science and changes in the national economy have wrought a profound change in the relationship between patients and their physicians. Twenty-five years ago, there were many physicians who were capable of treating patients with almost every disease. Now, however, there is so much to learn that no one medical practitioner could hope to have such broad knowledge. A quarter of a century ago, almost every diagnosis was made in the home and the family was given the responsibility of helping in the treatment. The relationship between the physician and his patient was a very personal one. If diagnosis was incorrect or treatment unsuccessful, the layman attributed this to the status of scientific knowledge or to the will of God. Rarely did he blame his physician.

Today, people expect their doctor to make an exact diagnosis, to give specific treatment, and often to perform miracles; therefore, physicians must utilize the most scientific methods of diagnosis and treatment that are available. Physicians are more dependent on the laboratory, the x-ray machine, and the hospital than formerly. Furthermore, specialization has made a greater number of consultations imperative lest some phases of diagnosis or treatment be neglected. Failure in the management of a case may result in loss of the physician's professional reputation or in a malpractice suit. Modern lay periodicals frequently suggest the possibility of poor medical care, and this may cause the patient to question a mode of therapy. Thus, the patient and the doctor become defensive in their attitude toward each other. The physician's reaction forces him to an impersonal scientific approach, and unless he guards against it, he may begin to think of patients merely as pieces of machinery on an assembly line.

The most common complaints against the medical profession are that doctors are difficult to see, are too busy to give each patient full attention, and are prone to keep patients waiting in their offices. There are also complaints about lack of emergency care at night and about overcharging. In general, the majority of these criticisms have stemmed from unfortunate incidents in which doctors failed to show the personal interest that was expected. Complaints of this type can largely be eliminated if physicians will make an effort to treat all patients as people, even though they may be tired and busy.

More care in scheduling appointments can eliminate much of the waiting in the physician's reception room. If the doctor is delayed by an emergency, genuine concern and explanation by his office assistant will ease the patient's irritation. When appointments are filled for some time ahead, the physician should speak personally to the patient and explain the delay. It really takes little time for a telephone conversation, and one can usually find time to do the things that are urgent. Patients will not feel rushed if the doctor shows sympathetic concern for their problems, and it always helps when he inquires about the patient's own interests and his family.

There is no substitute for explanation, whether treatment is medical or surgical. Both patients and their families want to know the diagnosis, procedures that are planned, and what has been done upon completion of an operation, treatment, or diagnostic study. Drawings and diagrams are sometimes helpful. Explanation may require time that the doctor thinks cannot be spared, but it will be more than justified by the results.

In regard to night calls and emergency care, physicians should recall that they knew this was part of the practice of medicine before they entered medical school. It is their obligation to serve when they can. If a physician is not available for a call, his office assistant or his wife should show a sympathetic concern about the problem, and should try to aid in locating another physician if the matter is urgent.

Fewer than two per cent of doctors are guilty of overcharging, yet the whole profession is blamed. In general, if the physician will take the time to explain each item on the bill, patients will be satisfied, particularly when explanation is offered in advance. There will be no dissatisfaction about charges if both the doctor and the patient agree that the fee is earned on the basis of services rendered.

My father, a physician, frequently refers to his relationship with patients by the statement, "I have *worked* for that family for many years." How often do doctors feel that they are "working for" a family? A few seem to feel, instead, that they are generous in condescending to accept a patient. When physicians assume responsibility for care of the sick, they must also accept the fact that they are servants of mankind. They do not heal: They merely use the God-given resources which aid the body to return to a healthy state.

If free enterprise in the practice of medicine is to survive, doctors must take the responsibility of establishing a closer relationship with those people who entrust their lives to the care of medical practitioners. There is no single panacea for all members of the profession; each physician must evaluate himself from the patient's point of view, and then prescribe corrective measures if they are needed, but *dedication* must be the principal ingredient.

—ROBERT MAYO TENERY, M.D.,
Waxahachie, Texas.

All Are Guardians

Without doubt, if it had not been for the principle of voluntary health insurance as a means of prepaid medical care, a system of government sponsored, compulsory health insurance (which, regardless of name, is still socialized medicine) would exist in this country. This being true, it follows that practicing physicians are the guardians of voluntary health insurance—whether they choose or not—if freedom of medical practice is to survive.

The philosophy of voluntary health insurance has injected a third party into the practice of medicine: the insurance carrier. The interest of the carrier, simply stated, is seeing that the funds it collects are distributed fairly for a just administrative fee. Insurance does not create any new wealth just because of its existence; the only money available for payment of claims comes from the policy holders' premiums. With increasing demands on insurance benefits, premium rates must necessarily climb to offset these demands.

Thus, the physician often finds himself in a spot that he does not altogether relish. He is frequently caught between his patient and the insurance carrier; many times pressure is exerted by both sides. A patient may demand unnecessary utilization of existing health care facilities merely because he has an insurance policy. Conversely, the insurance carrier may attempt to interfere with good medical management of the patient, which is every physician's first interest.

Physicians have expressed many different attitudes as to their participation in the voluntary plans. Most cooperate to the fullest extent, being sure that both the carrier and the patient are treated fairly. A few, however, create a bad reputation for all members of the medical profession. Some, for example, will not file insurance reports to help their patients. Others demand that the carrier pay them a fee for filing such claims. Worse still are those who charge higher fees when they find that the patient has insurance. Fees for medical services rendered should never be based upon whether the patient has insurance; this is a personal matter between the doctor and the patient.

It is poor public relations for a physician to ask his patient if he has insurance before the fee is set. Many patients believe that the physician will charge him more under these circumstances, thus reaping from the policy more than his usual fee. Occasionally, a patient thinks that his insurance pays more than it

actually does and that maybe the doctor is beating him out of the amount that he must pay. The patient may doubt whether he and/or his insurance company is being treated fairly on many occasions.

Every possible effort must be exerted to see that voluntary health insurance plans are expanded. To do this, the present plans must be protected to the fullest.

If each physician adopts the Golden Rule of "doing unto others as you would have them do unto you," many of their problems as guardians of voluntary health insurance would be solved.

—A. REX KIRKLEY, M.D., Belton, Texas, Chairman, Committee on Health Insurance.

It's Your Turn

The 1961 American Medical Education Foundation needs your personal attention.

Texas physicians can help immeasurably to keep the priceless heritage of freedom to practice in the chosen work for which they have diligently trained; to help educate young men and women; or, by default, to let a government agency usurp its authority and direct its so-called Utopia upon the unwitting public. *The choice is yours.* Medicine can be the true expression of what physicians feel and like to do for others, or again, by default, physicians can allow unskilled people to direct their mode of care.

The American Medical Education Foundation was established by the American Medical Association some 10 years ago. Its goal as a nonprofit organization is to assist the 85 medical schools in this nation by soliciting funds for them and distributing the monies to the participating schools.

The American Medical Education Foundation funds are used:

1. To augment instructor and teacher salaries.

2. To help purchase needed equipment for which no funds have been allotted.

3. To provide medical school deans with additional funds, on which no restrictions are placed.

There are several ways by which the American Medical Education Foundation funds are received. Funds for this important cause are raised by an assessment to the state dues in seven states. This means that seven states have 100 per cent AMEF participation. Five other states with good returns also have an assessment measure. There is good voluntary return in six states. Texas physicians give voluntarily and their program is considered one of the best balanced of its type with the physicians and the Woman's Auxiliary contributing large amounts.

A few statistics should interest all practicing physicians. In 1960, Texas physicians, with an average gift of $25.32, ranked ninth nationally in contributions. Gifts came from 14.6 per cent of Texas physicians. With the aid of the Woman's Auxiliary to the Texas Medical Association (whose gifts ranked second nationally), Texas' combined receipts ranked seventh in the nation.

From Feb. 1 through Sept. 30, 1960, Texans gave $23,949 to AMEF. This year through the same eight month period they gave $29,996. Total figures for 1960 amounted to $50,654.

Fourteen county medical society groups (representing 40 counties) made a 100 per cent contribution to the American Medical Education Foundation. It is hoped that the 100 per cent roster will increase.

The AMEF campaign which formerly was held only in October is being extended to Dec. 31. This change is designed to eliminate as much as possible the overlap with other fund drives. This way, Doctor, you can still take your turn to give to AMEF in either November or December. This is one chance physicians have to promote free enterprise in their own back yards.

—NELSON L. SCHILLER, M.D., Austin, Member, Committee for American Medical Education Foundation.

A common objective of physicians and other civic-minded citizens of the community was to avoid injury to the mental and emotional health of the children.

The Dallas Desegregation Story

This past Sept. 5 in Dallas, the nation's largest previously segregated school system admitted a total of 18 Negroes into the first grades of eight elementary schools. This was the beginning of the "stair-step plan," whereby a grade each year will be desegregated.

Approximately 18 months ago, the Dallas Citizens Council—a group of about 250 civic-minded citizens —appointed a committee of seven members to develop a program that would prevent violence and discord when desegregation began. This committee met with psychologists, law officers, Negro leaders, and citizens of other communities that had faced desegregation problems. Committee members retained professional public relations counsel, and enlisted the aid of the Greater Dallas Council of Churches, Dallas Bar Association, and Dallas County Medical Society. A program was developed that had two basic tenets:

1. Whether one favors desegregation or not, a good citizen obeys the law.
2. Violence harms a community and all of its members.

The Dallas County Medical Society, particularly through its Executive Officer and its public relations and public health committees, helped with the program in many ways. Physicians met with the Committee of Seven, and sat in on meetings of merchants, restaurateurs, television executives, hotel managers, and newspapermen. Their presence at these meetings was cited as desirable because "they represent the largest group of thinking intelligent citizens in our community."

A doctor appeared in a motion picture, "Dallas at the Crossroads", which was concerned with the need to obey the law and which emphasized the harmful effects of violence, particularly upon children. A speakers' bureau used both white and Negro doctors. Society members spoke at meetings of organizations or church groups, in many instances showing the film. The medical society sent a statement to its members suggesting that they help to maintain community health by discouraging violence.

When Sept. 5 arrived, there were no mob scenes, demonstrations, or acts of violence throughout the city. A potential crisis had been met and handled with peace and dignity.

In any community facing this problem, physicians can play a major role in two capacities—with others, as intelligent citizens preventing extremist behavior on either side; and, uniquely, as authorities in the field of the mental and physical health of their fellow townspeople.

—P. E. LUECKE, JR., M.D.,
Dallas, Texas.

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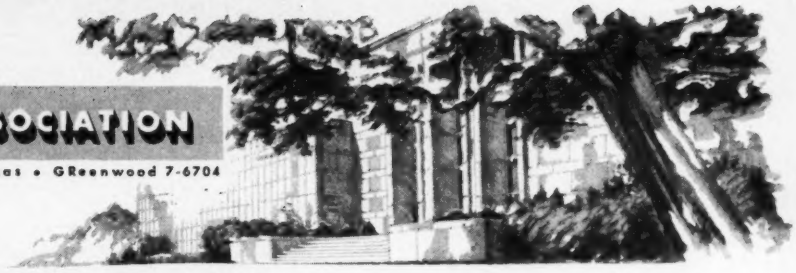

Let's Show Our Mettle

Something unique is being attempted in Texas. For the first time in the history of the insurance industry, a welfare program has been assigned to an insurance company for processing and financing medical coverage of the state's old age assistance recipients. A total of 221,000 recipients of old age assistance benefits in Texas will be covered by Blue Cross and Blue Shield for hospitalization and medical care. For this adventurous and significant movement to furnish aged patients the best in hospital and medical care through the medium of private initiative and endeavor, one must admire the resourcefulness of the State Department of Public Welfare administrative staff and personnel of Blue Cross-Blue Shield of Texas. A major portion of Texas' medical vendors' care program (Kerr-Mills implementation) will be serviced and paid for through insurance.

This unusual approach obviously has much to commend it. It will insure the patient of free choice of physician and hospital, it will reduce governmental operation and control to a minimum, and it will facilitate effective administration by an organization which has acquired considerable experience with physicians and hospitals.

The doctors of Texas are extremely proud of the Public Welfare Department for initiating this type of program. By this precedent setting procedure, the Department has challenged medical practitioners to implement the program with full cooperation and integrity. Physicians will be the admitting officers for those persons eligible for old age assistance by hospitalization. At regular intervals, the individual doctor will be asked to terminate or extend hospital care, depending on the recipient's condition.

The Texas physician, with his control of hospital care and the control of utilization of this program, is accepting a real challenge to prove to the world that we in Texas can take care of our own without an inefficient, government controlled, social security program of medical care for the aged.

Are you, my colleague, ready to accept this challenge?

Harvey Renger, M.D.
President, Texas Medical Association

Let's CONTROL Viral Hepatitis

TREMENDOUS interest in viral hepatitis has been generated by the ever-growing numbers of cases of the disease reported to public health officials.

The Weekly Morbidity and Mortality Report of the U. S. Public Health Service, dated March 17, 1961, states, "the 1961 cumulative total for the ten week period ending March 11, is 17,472 cases which is more than double the 7,332 cases reported the comparable period one year ago and considerably above the 12,842 cases in 1954, our last national hepatitis peak". Reported cases of viral hepatitis in Texas follow the national pattern (Table 1).

The Texas State Department of Health reports that viral hepatitis between January 1 and August 26, 1961, affected 2,345 persons; during the same period in 1960, there were 1,566 cases.

In Houston and Harris County, 91 cases were reported in 1959 and 116 in 1960. The morbidity report for the week ending August 25, 1961, shows a cumulative total of 203 cases, compared with 81 reported for the same period last year.

Etiology

The etiologic classification generally employed is (1) virus A, which causes the epidemic or sporadic form of the disease commonly called infectious hepatitis, and (2) virus B, which causes serum hepatitis transmitted by the parenteral inoculation of contaminated blood or its products, or by use of inadequately sterilized instruments.

TABLE 1.—*Viral Hepatitis in Texas.*

Year	Cases Reported
1952	265
1953	1,246
1954	1,908
1958	833
1959	1,290
1960	2,252

Epidemiology

Viral hepatitis occurs world-wide resulting in endemics, epidemics, and pandemics. Outbreaks are most common among military personnel and persons in institutions.

According to the literature, this disease is more common in the autumn and early winter, but it may occur at any time of the year. In Harris County, infectious hepatitis occurs the year round.

Infectious hepatitis especially is a disease of school age children. The attack rate diminishes sharply after age 30. The 5 through 20 year age group is most often involved. Of the 116 cases reported last year, 69 were in this age category.

Distribution by race and sex indicates that more whites than non-whites are involved and that more females, both white and non-white, than males are affected. This supports the possibility that a specific sex related factor is important. "In support of this have been the observations that the incidence is considerably higher among girls shortly after menarche."[2]

The disease in the community spreads in a straggling, leisurely way that indicates person-to-person contact and transmission via the fecal-oral route. This mode of transmission concept is supported by the age group most frequently affected. Epidemics have been related to contaminated water and food; recently an outbreak of 77 cases of infectious hepa-

Each year, the number of cases of viral hepatitis increases. There is no known vaccine for this disease, but close cooperation between practicing physicians and public health personnel, plus judicious treatment, can check its spread.

Francine Jensen, M.D.

titis was reported in Mississippi and Alabama from the consumption of raw oysters obtained from a localized area at the mouth of the heavily contaminated Pascagoula River.[6]

Evidence suggests that the duration of infectivity, which is not exactly known, is relatively short in the acute phase. "Experimental and epidemiologic evidence also suggests that carriers, both sick and healthy, are of great importance in the maintenance of virus in nature and the spread of disease."[2]

Serum hepatitis is defined as that syndrome produced by the introduction of virus B through parenteral inoculation of blood or its product, or improperly sterilized instruments. The word "serum" is an unfortunate term, since infectious hepatitis is found in the blood also and may be transmitted in this fashion. The longer incubation period, insidious onset, and history enable the clinician to differentiate between the two forms of the disease.

TABLE 2.—*Comparison of Certain Features of Infectious Hepatitis and Serum Hepatitis and Their Causative Agents, Virus A and Virus B*.*

Clinical and Epidemiologic Features of Hepatitis	Type Infectious	Type Serum
Incubation, days	15-40	60-160
Onset	Acute	Insidious
Fever over 100.4 F	Common	Uncommon
Seasonal incidence	Autumn-winter	Year round
Age preference	Children & young adults	Any age
Susceptible host	Man	Man
Virus in feces	Acute phase	Not demonstrated
Virus in duodenal contents	Acute phase	Not done
Virus in blood	3 days before onset & in acute phase	Incubation period & acute phase
Route of infection (experimental)	Oral & parenteral	Parenteral
Duration of carrier state:	Unknown	Up to 5 yr. (one adult)
Blood		
Feces	Up to 16 mo. (one child)	Not demonstrated
Immunity:		
Homologous	Present	Equivocal
Heterologous	None apparent	None apparent
Prophylactic value of gamma globulin	Good	Equivocal or absent

**This material was derived from Expert Committee on Hepatitis.[1]*

Control

Both private and public health physicians have the task of preventing and controlling viral hepatitis. Since there is no immunizing agent, other methods of prevention must be used, and they unfortunately depend upon the individual.

In general, measures which tend to interrupt the fecal-oral circuit help to control the spread of infection through a community. To effect this in Houston and Harris County, a concentrated educational program has been attempted.

1. In-service training was provided for all public health workers, including school health nurses, to review the clinical and epidemiologic aspects of the disease, with emphasis on control by practice of good personal hygiene and improved community sanitation.

2. Physicians were encouraged to report cases of infectious hepatitis, and were advised of the health department's resources to aid them in pre-

ventive measures. Direct communication proved to be the most effective method to stimulate morbidity reporting, plus return of the information accumulated.

3. Epidemiologic investigation by the public health nurses is done in all cases of viral hepatitis reported in the county. This is burdensome to an already overloaded nursing staff, but it is profitable in controlling the spread within the family. Health department personnel are able to identify the source of infection (usually a school-age child), check on the secondary attack rate within a family, and emphasize personal measures necessary to prevent spread of the disease within the household or community.

4. Educational material was prepared (there is a paucity of such material) based on suggestions in the pamphlet, *"Clinical and Public Health Aspects of Viral Hepatitis"* published by the U. S. Public Health Service. There has been a great demand for this information. It is widely distributed to families of patients, school nurses and teachers, physicians, industrial nurses, and any one who desires information about this disease or who has been a contact of a patient with viral hepatitis.

In addition to the educational aspects directing attention to good personal hygiene practices, the Health Department distributes gamma globulin to physicians who request it for contacts of patients. Gamma globulin effectively controls this disease and reduces the secondary attack rate in families and institutions; however, it has not materially reduced the overall incidence in the community. This may be attributable to (1) failure of the physician to administer it promptly to familial contacts, (2) administration of gamma globulin too late in the incubation period, (3) inadequate dosage, and (4) large numbers of undetected subclinical cases.

The recommended dose of immune globulin at the present time is 0.01 ml. per pound of body weight. For practical purposes, 1.0 ml. is usually given to children weighing less than 100 lbs. and 2.0 ml. to older children and adults.[5] This dose may modify infectious hepatitis rather than prevent it. Persons receiving immune globulin upon exposure may develop a subclinical infection. This situation permits the person to continue his activities though he may have a subclinical case of the disease and be excreting virus for a variable period of time, thereby exposing a larger number of other persons to the infection. In contrast, the patient with a diagnosed case of infectious hepatitis is restricted and his contacts are aware of the danger of possible infection. Thus, the widespread use of gamma globulin leads to this paradoxical situation: the individual is protected, but the exposure of the community is increased.[4]

Krugman and associates, in a recent study regarding the dosage of gamma globulin to prevent secondary attacks in a closed institution, suggest that the optimum dose of gamma globulin for children, and especially adults, is 0.06 ml. per pound of body weight.[3] Thus administration of a higher dosage of gamma globulin might be recommended if it could be assumed that such an amount would prevent the disease.

Control of virus B hepatitis through properly sterilized equipment is necessary. Individual syringes, needles, and other instruments must be employed, even for procedures such as intramuscular and subcutaneous injections. Methods to control transmission of B hepatitis by blood or plasma transfusions are much more difficult to devise.

Dr. Francine Jensen is assistant director of the Harris County Health Unit. She presented this review before the Section on Public Health April 25, 1961, during the Texas Medical Association's Annual Session in Galveston.

Summary

The control of infectious hepatitis centers primarily around intensive educational efforts to improve personal and community hygiene. This aspect of control is the most neglected and the least acceptable to the public; yet it is the easiest and cheapest method of prevention available to the community. The use of gamma globulin to prevent secondary cases within households and institutions is efficacious, but a larger dose might actually prevent community spread.

Though knowledge of the etiology and epidemiology of viral hepatitis is limited, some plans for control can be implemented. These can be used until the direct means to prevent the disease are available.

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ROY E. MOON, M.D.

MATERNAL DEATHS IN TEXAS

1958-1960

Although the exact maternal mortality rate in Texas is not known, the author believes that there are still too many cases in which patients do not receive optimal care. The remedy, he maintains, is education of physicians, which to a large degree consists in reminding them of principles they already know.

THE COMMITTEE on Maternal Mortality was established by the Texas Medical Association and began functioning in 1954. Its ultimate purpose is to improve the quality of medical care in obstetrical cases by means of education. Critical analysis and evaluation of techniques, procedures, and results will cause most physicians to agree that, "Seldom if ever have I treated a patient as well as I should have done with the knowledge and skill I possessed at that moment". Hence, to a degree the work of this committee is to remind all concerned of principles that are already known.

Committee members have recognized the necessity of preserving anonymity in the cases studied. During the period covered by this report (1958 to 1960) all reference to town, hospital, and physician have been removed from the reports. The committee's purpose is not to assess liability for a medical or surgical result which is less than satisfactory. Rather its work resembles the studies of tissue committees, surgical committees, and other similar groups in hospitals. Avoidable factors are found in most cases investigated, and expression of opinion by the committee is based on the ideal. In most cases, more than one avoidable factor is found.

Report of the Committee on Maternal Mortality, Texas Medical Association.

Avoidable Factors

1. In a typical case there is a language barrier. A Latin-American woman is seen for the first time in labor—perhaps in a late stage of labor—and no history is obtained. The patient is taken to the delivery room a few minutes after admission because the nurse is afraid she will deliver in bed.

2. In the haste, basic precautions are omitted: no physical examination is performed; no blood count, blood type, or Rh factor determination is obtained; no urinalysis is ordered. These procedures could have been done while the patient was being prepared for delivery and the results made available in a few minutes. One case reported as death from coronary occlusion after careful study proved to be the result of rheumatic heart disease and congestive failure; the patient had a clear-cut history of congestive failure several times prior to her last pregnancy. A physical examination was not done.[4]

A grossly deformed pelvis was found at autopsy in a woman who had had several operations to repair bladder and other pelvic injuries after an automobile accident in which the pelvis was crushed. In this case fetal and maternal death resulted from anesthesia! The patient vomited on the delivery table,

aspirated vomitus, and died. A pelvic examination might have prevented this death.

3. There is unnecessary operative intervention in many instances. Once a patient is taken to the delivery room, the physician is reluctant to return her to the labor room. Oxytocics are given, or midforceps rotation and delivery are done for multiparas not in the second stage of labor, or barely in the second stage, with resultant fatalities. There are reasons for believing that ignorance is less commonly at fault than hurry to get back to the office, to dinner, or to bed, or simply to "get the delivery over".

4. There may be inadequate attention to the vital signs. "Good condition", "good postpartum condition", "condition satisfactory", "no excessive bleeding", "uncomplicated and uneventful course", and "fundus well contracted" are observations not infrequently recorded less than two hours before death. Recording blood pressure, pulse rate, and respiratory rate during labor, delivery, and for six hours postpartum is necessary to improve care of patients. Palpation of the fundus of the uterus postpartum will obviate many "sudden hemorrhages" a short time after the record shows a "well contracted fundus". A "well contracted uterus" has been known to yield a twin more than 24 hours later!

5. Treating pain without a diagnosis has contributed to disaster in a number of cases. In one, a woman complained of diarrhea and abdominal pain. Manifestations resembled those in a patient with acute fulminating enterocolitis, and she was admitted to the medical ward of a good hospital, where she died a few hours later of ruptured ectopic gestation. A patient reported in the *New England Journal of Medicine* was treated for acute cholecystitis because of upper abdominal pain, and the outcome was similar. She died of a ruptured tubal pregnancy.[4]

6. Undue preparatory delay is often contributory. It is astounding how much time is required to get a patient ready for an operation. Delay may be fatal if there is active bleeding, and shock can seldom be corrected, even with transfusion given under pressure, until the bleeding vessel is clamped. The leading cause of death from child-birth in the United States and in Texas is hemorrhage. In the literature most writers ascribe one-half or more of deaths from hemorrhage to rupture of the uterus. Ruptured ectopic gestation, ruptured ovarian vessels, and vaginal and cervical lacerations complete most of the list. Uterine atony is not a major cause; in carefully investigated cases it comprises 20 per cent or less of the deaths from hemorrhage.[3] This is not to say that atony does not commonly explain postpartum hemorrhage, but relatively infrequently does it cause death.

With hemorrhage, delay should be only long enough to insure the free administration of copious quantities of blood. Administration of blood substitutes and plasma expanders is inferior to clamping the bleeding vessel.

7. The additive effect of adverse factors can be a causative factor. A reasonably healthy woman can usually tolerate one or two, and sometimes three, serious complications, but succumbs when another is added. Thus, it is seldom easy to ascribe a single cause of death, since it more commonly is a chain of events with several additive factors.

Dr. Roy E. Moon of San Angelo is a specialist in obstetrics and gynecology. He wrote this report for the Committee on Maternal Mortality of Texas Medical Association, comprised of 14 members, and presented it before the Section on General Practice on April 25 in Galveston.

Earlier Statistical Studies

The maternal mortality rate in the United States was higher than in any other major country in the world which reported such statistics around 1900. About 1930, the rate began to decline, and it has continued to decline to the present. The reason for the decline cannot be blood transfusions, antibiotic therapy, or the advent of obstetrical specialization. None of these played a major role in 1930. The answer must be as McKelvey says: "The quality of medical practice as related to pregnancy, must have started and continued improving".[4] Doctors are better trained in obstetrics. Psychological handling of patients has real value, but it is not an adequate substitute for technical skill.

In 1939 the death rate ascribed to pregnancy was 6.08 per thousand in the United States. In 1953, this rate had dropped to 0.6 per thousand (1.6 for nonwhite and 0.44 for white patients). (Vital Statistics U.S.A., 1953).[4]

In Texas, the latest year for which figures on maternal deaths were published by the Bureau of Vital Statistics of the Texas State Department of Health is 1953. The investigation covered the years 1939-1953. The number of maternal deaths in 1939 was 590, a rate of 4.9 per thousand. This number had dropped by 1953 to 209 maternal deaths, a rate of 0.9 per thousand.

These statistics are taken from death certificates which, insofar as they apply to maternal mortality, are grossly inaccurate. McKelvey[3] showed that in Minnesota two-thirds of the diagnoses on death certificates were wrong; for example, coronary occlusion

as the reason for death is more likely to be in error than to be correct. The diagnosis of pulmonary embolism is even less accurate; in fact, it is seldom correct. From one-half to one-third of maternal deaths do not appear as such on death certificates. These can be discovered by cross-matching death certificates for all women between the ages of 14 years and 48 years with birth certificates and stillbirth certificates for the same period.

During the 1939-1953 period, the rate of home deliveries in Texas dropped from 62.5 per cent to 13.6 per cent. The percentage of deliveries by persons other than physicians dropped from 16.5 per cent to 3.1 per cent.

The Texas statistics were not broken down to show the causes of death. For the United States (Vital Statistics, 1953), causes of death were as follows: abortion 12 per cent, complications of pregnancy 42 per cent, complications of delivery 32 per cent, and complications of the puerperium 14 per cent.[4]

There is no reason to believe that the figures for Texas differ widely from these.

Present Investigation

The Committee on Maternal Mortality has been active, but the results to be given show how incomplete its survey has been. Some of the reasons for this deficiency are obvious.

1. Less than half of the questionnaires sent out are properly completed and returned to the office of the chairman.

2. Probably between one-third and one-half of maternal deaths are not reported to the office of the chairman by the State Health Department.

3. The committee has no funds for operation. It is difficult to request a copy of an autopsy report from a pathologist in private practice and ask that he furnish a stenographer and duplicating materials. This factor seriously curtails the investigation.

4. The chairman of the committee has, from the beginning, been a member of the department of obstetrics and gynecology of a medical school, and it is from his office that postage funds have come. The questionnaire forms and stationery have been supplied by the Texas Medical Association. A stenographer is on loan without official status from the State Health Department.

5. The questionnaire forms have been modified at least four times. An improved form was adopted at the committee's meeting this year.

These and many other problems must be resolved by the committee before reasonably accurate reports can be given.

The cases studied by this committee comprise a total of 194 for the period 1958-1960 (Table 1).

TABLE 1.—*Causes of Death in 194 Obstetrical Cases in Texas. 1958-1960.*

Cause	No. of Deaths 1958	1959	1960	Total
Hemorrhage	19	33	7	59
Infection	10	18	8	36
Vascular accidents & cardiovascular disease	17	9	8	34
Toxemia	13	6	2	21
Heart disease	4	3	3	10
Anesthesia	4	7	2	13
Miscellaneous	8	10	3	21*

*Hepatic disease 3, electrolyte imbalance 1, metabolic disease 3, pulmonary disease 5, urinary tract disease 4, unclassified cause 5.

The year 1959 is the most representative, since stenographic help was not available in 1958 and since 1960 cases probably will continue to arrive during 1961.

Hemorrhage heads the list of causes with 59 deaths. Less than half of these patients received blood, and most of those who did were given one pint or less. However, apparently adequate amounts of blood, given after irreversible shock ensues, fail to alter the outcome. The diagnosis of hemorrhage is not difficult to make, but is sometimes difficult to face. It has been said that "The obstetrician is called upon to exercise the best judgment and demonstrate the greatest skill when his resources are at the lowest ebb".[1]

Infection of various types caused 36 deaths. Many of these patients received adequate antibiotic treatment, but only after irreversible shock had resulted from overwhelming infection. More often than not, infection is superimposed on severe hemorrhage, anemia, and trauma. The reduction in the death rate from infection has been dramatic, but is by no means eliminated as a major cause of maternal death.

Surprisingly enough, *vascular accidents and cardiovascular disease* accounted for 34 maternal deaths during this period. These included amniotic fluid embolism and afibrinogenemia, causes which have had an increasing incidence in the past ten years. Such cases were formerly included in the hemorrhage category.

Toxemia accounted for the death of 21 mothers. Relatively few of these had adequate care, and most of them had had no care prior to admission to a hospital or when they were first seen in the home.

Heart disease of various types accounted for 10 maternal deaths. There often was manifested lack of knowledge that: (1) any patient who has had congestive heart failure previous to the onset of a pregnancy is likely to have serious trouble during that pregnancy and (2) the critical period of pregnancy for a patient with cardiac disease is during the 28th to 32nd week, when cardiac output and pulse rate are highest.

Anesthesia was assigned as the cause of death in 13 women. There were 8 general anesthetic deaths, 4 spinal anesthetic deaths, and 1 death in which the type of anesthesia was not given. In general, there has been a relative increase in anesthetic deaths in recent years. The death rate in spinal anesthesia has increased more than in general anesthesia because the spinal anesthetic can be administered by the doctor doing the delivery, while the patient is unwatched by a trained person. Until obstetrical anesthesia is given the same consideration as surgical anesthesia, little progress will be made. Each doctor engaged in obstetrics is obligated to work out a safe anesthetic procedure which is realistically adapted to the available physical equipment. In a well equipped hospital with skilled anesthetists, there is no problem.

There were 21 other maternal deaths during the period studied. These were, in the main, from non-obstetric causes, and are classified in the footnote to Table 1.

Summary

A plea is made for conservative obstetrics, by which is meant conservation of lives of mothers and children during pregnancy, labor, and the puerperium. No member of the committee on Maternal Mortality would pass judgment on a doctor who reports a maternal death. Who can recall an exactly similar situation in which all factors were equal?

The conclusion is inescapable that improvement in mortality rates from preventable causes will result not from expensive equipment or highly skilled hospital staffs but from better use of knowledge physicians already possess. Due consideration must be given to sublethal damage; additional injury to an already injured patient must be avoided.

There is a considerable amount of evidence to show that the irreducible minimum in obstetric death rate is 0.2 per thousand. The present mortality rate in Texas is not known; it is a function of the Committee on Maternal Mortality to determine this rate.

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Dr. Moon, 234 W. Beauregard, San Angelo.

Contaminated Soil Found in City Parks

A fungus, *Histoplasma capsulatum,* has been found beneath sycamore trees in soil contaminated by starlings in two Washington, D. C., parks. The fungus causes histoplasmosis, a lung disease.

Previously, it was believed that the fungus grew only in the soil of rural areas and small towns.

The findings are described by Dr. Chester W. Emmons, chief of the Medical Mycology Section of the National Institute of Allergy and Infectious Diseases, in a recent issue of *Public Health Reports,* published by the Public Health Service.

Past reports by Dr. Emmons and other scientists have indicated that droppings from some species of wild birds, as well as from domestic fowl, create a soil condition highly suitable for the growth of the fungus. Man is infected by inhaling contaminated soil or dust. The severity of the disease varies from a symptomless and apparently harmless condition to an incapacitating lung lesion. It may take a fatal form characterized by chronic lesions of various internal organs. There is no drug treatment.

Homosexual Syphilis Epidemic

W. V. BRADSHAW, JR., M.D.

In March and April of this year, health officials in Fort Worth uncovered an outbreak of syphilis among homosexuals which threatened to reach epidemic proportions. The author tells how city health officials and private physicians intensified their cooperation during this three to six-week period to halt the outbreak.

THE GREATEST obstacle encountered in a syphilis epidemic is recognition by the health department and the community that a syphilis problem exists. Although Fort Worth has no greater venereal disease problem than cities of similar size and population make-up, public health officials in the city strive to be informed of its health problems and to apply appropriate methods to solve them.

Described herein is one situation which was solved through use of epidemiologic methods. Undoubtedly, in the future similar situations will require the same degree of effort if epidemics of syphilis are to be prevented.

Speedy and careful epidemiologic follow-up of infectious syphilis by any physician who sees such patients is extremely important. With good cooperation between private physicians and the health department staff, much more adequate control and reporting of the disease is possible. (The Fort Worth department offers to interview any private physician's patients, upon his request, with or without identification of the patient.)

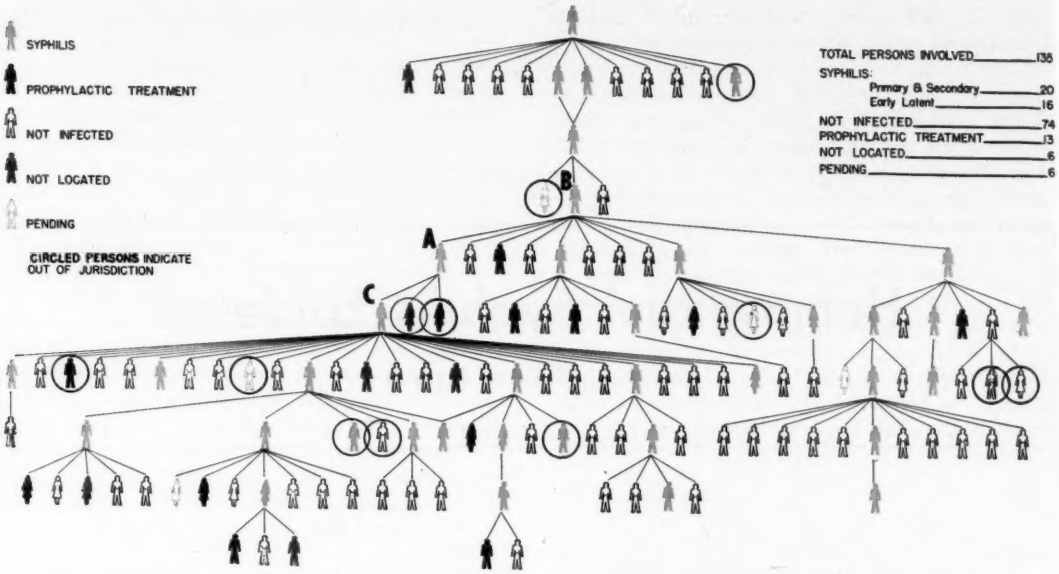
During 1959 in Fort Worth, there were 18 cases of primary and secondary syphilis reported from public clinic sources and 12 primary and secondary cases reported from private physicians. Despite repeated re-interviews with infectious patients, epidemiologic failure (failure to find the source of the infection) was the rule rather than the exception.

In 1960, increased activity in the private physician program and in all phases of case finding resulted in a 220 per cent increase over 1959 in reported cases of primary and secondary syphilis. Epidemiologic failure, however, remained discouragingly high despite intensive efforts to avert such failures.

Indications of a continued rise in infectious syphilis cases were evident in early 1961. By March, 29 primary and secondary cases were diagnosed in the Venereal Disease Clinic of the Fort Worth Department of Health. This represented a 311 per cent increase over the same period in 1960.

Contact Information

On March 16, 1961, a patient with primary syphilis entered the Clinic. Epidemiologic follow-up of this patient the next week revealed a potentially explosive outbreak of infectious syphilis. Intensive interviewing, re-interviewing and clinical evaluation of this and subsequent cases resulted in 135 contacts named and brought to examination and/or treatment. Thirty-six cases of infectious and early latent syphilis were diagnosed and treated by private physicians or the health department within three weeks from the time of the first diagnosis. All patients with early latent syphilis were considered to have been infected for less than six months. Prompt action undoubtedly caused this outbreak to be terminated much sooner and with fewer cases than otherwise would have been expected.



The first significant infection in the outbreak was in a 16-year-old Negro male (designated "A" in Fig. 1) who reported voluntarily to the clinic with a darkfield positive penile lesion. Only one female contact was named in the initial interview. Information was meager, and despite intensive effort this contact was not located. A second interview of the patient, however, led to discovery of two homosexual contacts, both Negro males. Both had secondary syphilis. One reported that he had been treated six months earlier for infectious syphilis. The first of these two contacts ("B") readily gave a history of 12 homosexual contacts on initial interview. "C," however, proved difficult to interview. He was married, had one child, and his wife was pregnant. Stationed at a nearby air base, he was an alert, intelligent person with none of the characteristics normally attributed to the homosexual. Nevertheless, in addition to being named by "A," he was named as a homosexual contact by "B." After two and one-half hours' investigation during the initial interview, the names of 28 homosexual contacts were elicited. In the total number of contacts named, all were Negroes except for one white and one oriental, neither of whom were infected.

The Fort Worth Clinic's facilities were adequate to handle the increased patient load, but only two investigators were available. To insure rapid effective epidemiologic investigation, the director requested aid on March 24 from the State Department of Health. Two additional investigators arrived March 27 in Fort Worth, and before 11 a. m. contacts were reporting to the health department as a result of their investigation.

Epidemic Control Factors

Many interesting facets of this epidemic cannot be related, but the most important factors which contributed to its successful control can be listed:

1. Interviews were necessary to obtain names of homosexual contacts, regardless of how many names of heterosexual contacts were given. At least three of the infected individuals in the homosexual group had been treated previously for infectious syphilis. For one subject, it was the third re-infection in eight months. All three of these homesexual contacts had been epidemiologic failures previously, having named only heterosexual contacts.

2. Speed in investigation and transmittal of epidemiologic information was imperative. In many instances it was possible to obtain complete epidemiologic results in time for at least one re-interview, and many times more than one re-interview was possible. For example, information on a contact was telephoned at approximately 8:30 a. m. to the State Department of Health where it was relayed by telephone to the California State Department of Health. Although the information obtained from the California agency was not complete, the call was returned before 11 a. m. the same day. By that hour the contact had been located, had been found to be infected, and had been given initial treatment.

3. Recognition of a potential epidemic and immediate inclusion of all available resources, including outside aid was necessary to the investigation. The local medical society was alerted to the extent

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of the problem, and its members cooperated fully. Physicians who previously had been reluctant to report cases of infectious syphilis not only reported, but made rooms available in their clinics for interviewing their private patients.

4. Cluster interviewing (an extension of the standard interview in which associates of the infected patients are investigated, as well as actual sex partners) and re-interviewing were conducted. Almost invariably a combination of these techniques resulted in discovery of cases which otherwise would not have been located. Although all of the infectious homosexuals were interviewed for cluster suspects, the names of only ten of these suspects were obtained. This could only be explained by the fact that the homosexual group is an exclusive fraternity and that friends of homosexuals are, in most instances, their sex partners as well. In a large homosexual group it is impossible to show by epidemiologic charting the widespread inter-relation of the group. During an interview of one of the last patients diagnosed as infectious, the request for names of contacts incurred the remark, "I'll be glad to tell you who I've been with, but you have already checked all the people like me in town."

Summary

This brief report re-emphasizes the necessity for careful and thorough epidemiologic investigation; early diagnosis and treatment; and rapid transmission of contact information on extraterritorial contacts in all infectious cases of syphilis. The utilization of these devices and cooperation of local physicians short circuited a potentially large outbreak of syphilis. Thirty-six cases among 135 known contacts were found and treated in three weeks. Investigation of two local contacts was still pending at the time this article was written, and five local contacts had not been located. The average age of those infected was 22. This experience proves that physicians must be alert and must utilize all resources if syphilis is to be controlled.

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A Cooperative School Health Program

ALBERT G. RANDALL, M.D.

A COOPERATIVE school health program should be just what the title implies—cooperative. In our area, such a program involves the school administration, local governmental agencies, the local health department, and private practicing physicians within the community.

Prior to the establishment of this program in Amarillo, the school health program, the public health program, and local medical practitioners each provided some services. Because efforts were not coordinated, the results were much overlapping and duplication of services, inadequate and frequently strained relationships, and extra expense to the consuming public.

This presentation outlines how our community went about establishing a coordinated program, what it entailed at that time, how it is administered, and our opinion of it at the end of the first year of joint operation.

History

This is not the first program of its type in Amarillo. From 1930 to 1938, the school health program was under the direction of the local department of health and its Director, Dr. Ben Primer. In 1938, the health department, through loss of direction, was dissolved into three organizations. The school provided the school nursing program, the City of Amarillo assumed the regulatory functions and laboratory services, and the county provided services to the indigent through the county physician. This program continued as such, with minor alterations for the next 20 years. In 1953, a survey of health, recreation, and welfare services by the Evjen Committee recommended as part of its summary of health needs the following:[1]

3. That the school health service be combined with the Amarillo City Health Department.
6. That a full-time public health nursing supervisor be added to the staff of the Amarillo City Health Department.
7. That all public health nursing services in the area be consolidated and the City divided into districts with each nurse carrying a generalized nursing program within her district. "One qualified nurse can best provide all public health nursing services needed at a particular time for any one family." That when the administrative aspects of this program have been placed on a sound basis, additional nurses be employed to the end of reaching the minimum standards of one nurse per 5,000 population as is recommended by the American Public Health Association.
15. That medical direction of the School Health Program be provided. That the teachers assume responsibility for the screening now done by the nurses and that the nurses be used as consultants to the teachers and for follow-up of children in the home, rendering public health nursing service on a family basis. That the assistance of the sanitarians in the Amarillo City Health Department be used by the schools in developing a health environment for the school child.

As a result of this survey, the Potter-Randall Citizens Committee for Health, Recreation, and Welfare was formed. This committee consisted of a group of leading citizens charged with investigating the recommendations of the survey and implementing its findings. In February, 1957, the Counties of Potter and Randall and the cities of Amarillo and

A community, through its local government, school boards, health department, and medical society, can provide a cooperative school health program which is advantageous to all concerned, yet without duplication and overlapping of functions and programs. A program of this type in the Amarillo-Canyon area is described at the end of its first year of operation.

Canyon formed a bi-city-county health unit, with a board of health representative of the two-county area. Implementation of the program began with a meeting of the board of health and the school superintendent in Fall, 1959, at which time many problems of administrative responsibility were discussed. Within six months the responsibilities of the various members and groups had been defined. If these roles and responsibilities are remembered, many problems relative to forming a cooperative program can be prevented.

Suggested role definition is as follows:

Local School Board: Is composed of elected officials legally responsible within the community for establishing, enforcing, and financing the policies of the school program within its jurisdiction. The school health program of the community is the program adopted by this board.

School Superintendent: Is the chief administrator of programs adopted by the school board and is responsible for seeing that school board policies are carried out.

School Physician or Medical Director: Is administratively responsible to the superintendent or his appointed aid. Is responsible for preparation; carrying out and recommending changes in the over-all school health program. I, as Director of Public Health, serve in this role in our area.

School Principal: Is the administrator of the overall school program within a school unit.

Private Physician or Family Physician: Is responsible for the medical services to the individual child and/or his family.

Administration

The school health program should be prepared by the medical director of the health department and two members of the staff of the school administration who are knowledgeable in school health work. Preferably, these individuals should be on the central administration staff. The school health nursing supervisor and nursing director should work with this group. The completed program shoud be submitted to the superintendent for his approval and presentation to the board.

The school health program adopted by the board of the Amarillo Independent School District is the program conducted in the schools over which the board has jurisdiction. Exceptions to this are found in schools where special or pilot programs are carried out, but only after approval by the superintendent and/or the board.

The school system employs 15 nurses for the school nursing program during the school year. In order to carry out the administrative change with the protection of nursing personnel, members of the nursing staff presently employed by the schools work only during the school year and retain their teacher retirement plan. Through contractual arrangements between the City of Amarillo and the Amarillo Independent School District, any new nursing personnel would be employed by the bi-city-county health department and would work under the policies of this organization. The Amarillo Independent School District will pay the equivalent prorated share of the expenses for this employee, and the difference will be paid by the City of Amarillo. In view of past experience and the growth of the school population, additional personnel will have to be employed in the future. These additional staff members will be

Dr. Albert G. Randall, who is Director of Public Health in Amarillo, presented this paper before the Section on Public Health during the Galveston Annual Session on April 25, 1961.

added when recommended by the director of school health services with approval by the Superintendent as necessary to carry out the approved school health program. Approvals of the Amarillo Independent School Board and the Amarillo City Commission are also required.

The nursing director is responsible for assignment, professional supervision, and guidance of nursing personnel within the districts and schools. The staff wears uniforms recommended by the nursing director. The principal is administratively responsible for the nurse while she is in the school. In case of personality conflicts between a nurse and principal, another nurse is assigned to the school and district if requested by the Superintendent. If a staff member, because of emotional or other problems, cannot work satisfactorily in the schools, the superintendent has the authority to prevent this person from serving any schools within the schools' jurisdiction.

The director of health serves as the school health physician. He is expected to attend meetings of the School Administrators and principals as requested, to explain the school health program or to discuss problems that may arise. In addition, these meetings enable him to understand school administration problems and how best to provide the school health program.

The family physician has an important role in the school health program within our community. This role is one which requires frequent visits with the school physician or nurse to provide the needed communications between these partners in the school health program.

A public health committee of the local medical society works with the Director of Health in an advisory capacity to both the board of health and the school health program. In addition, the local physicians are notified and society action is taken on matters pertaining to medical practice.

The program conducted within Amarillo schools during the first year of this cooperative venture has been primarily to ascertain the content of the school health program, to submit it for adoption by the school board, and to orient school nurses in a generalized public health nursing program and public health nursing staff in school health services and programs. To carry out this program, the nursing staff was assigned to districts with the family oriented approach. Each nurse served the individuals, families, schools, and community within her district.

Future Development

At this stage of development, our proposed school health program entails the following:

1. *School Environment:* A healthy school area is required by the Sanitary Code of Texas.[2] In this rapidly growing area, most schools are architecturally designed and engineered to avoid many of the problems in this area.

2. *Health Emergencies:* The school health program should encompass methods of handling emergencies, notifying parents or physicians, and assuring the availability of first-aid trained teachers and supplies.

3. *Communicable Disease Control:* Children with symptoms of communicable diseases should be excluded. The teacher is the key individual in the maintenance of the health of pupils, and by daily observation can detect the child with a febrile illness or sign of communicable disease. The principal's office should notify the health department of a communicable illness. The Public health nurse in the district should visit the home to ascertain if medical attention has been sought and to aid in the removal of contacts when necessary. Pupils with communicable disease should be excluded until the disease is noncommunicable, which would be decided by the family physician or the health officer. A readmission permit should be issued.

a. *Immunizations.* The need of children to be protected by immunizations cannot be overemphasized. Immunizing procedures should be carried out during the first six to eighteen months of the child's life, and boosters should be given at the time of entrance into school. The public health nurse can work with the family that needs help. The local health department and the local medical society, working together, could have most children immunized before the age of two years and could assure that they receive boosters before entering school.

b. *Health of school personnel.* The prevention of communicable diseases spread by school personnel is important. To meet this problem, a history and physical examination should be carried out annually by the family physician and recorded on forms provided by the school system. These records would be reviewed by the school health physician.

c. *Screening tests.* Tuberculin testing should be performed annually on students in the first,

eighth, and twelfth grades. All children with positive reactions should have a chest roentgenogram. Other family members should be examined for additional cases or the source of the infection.

4. *Individual Health Services.* The health history of a child is important to the members of the school health team. To obtain this information, a complete medical history and physical examination prior to entering school or transferring into the system is essential. This information should be from the family physician. Any child who has a physical handicap should be discussed with the family physician or school physician in order that the teacher may better know how to work with the child.

Observation gives the teacher an indication of suspected early health problems, and children with such problems should be referred to the school nurse for evaluation, recommendation, and follow-up observation. At least once during the year the nurse and the teacher should confer about the health of each child.

a. *Dental Health.* In view of the large number of children of school age with dental health problems—particularly caries and malocclusions—and the lack of satisfactory screening methods, this program should be directed toward stimulating the parents and the child to seek dental examination routinely. In this manner, the majority could be provided dental care. The school nurse, working with the community clinics, could obtain corrections for those unable to afford this service.

b. *Screening tests.* Certain conditions which adversely affect the health of the child, and consequently his education, may be found and corrected during the school years. An example is a visual defect. By adequate testing annually, many children with improper vision will be detected. They should be referred to the family physician for corrective measures. The nurse should follow up on those found to be delinquent.

c. *Hearing tests.* Sweep checks should be made on the second, fifth, and eighth grade pupils annually with referrals from teacher observation, new students, and those who failed the test in previous years. This test may be conducted by a nurse in the school. Those who fail this test should have an evaluation by an audiologist to determine the threshold acuity. Any child with greater than a 15 decibel loss in two frequencies or a 30 decibel loss in one frequency should be referred to the family physician. The medically indigent who need a complete audiologic evaluation or hearing aid evaluation can be handled through community resources. In addition, children with speech defects can be screened and evaluated and referred for therapy.

d. *Weight and height measurement.* This screening device should be conducted by the teacher. It serves as an educational experience for the child and the teacher, and allows her to note large discrepancies in either area.

The most important part of any school health program is the follow-up of findings, whether they be of a communicable or noncommunicable nature, with referral of the child for proper medical attention.

5. *Preschool Health Program:* A major benefit of this program, to the community directly and to the school indirectly, is the preschool health program. Health habits started long before school are continued. Defects detected may be corrected and the child will be more nearly ready for school on a footing equal with other children of the same age, both physically and emotionally. This type of program is available if public health nursing services are provided all citizens. In the spring, prior to school entry, the nurse could work with the child and parent in conjunction with the school or P-TA to familiarize the new parent with the school, its health program, and requirements. This experience has proved a valuable educational experience to the parent, child, school personnel, and nurse.

Conclusion

The advantages of this cooperative program are many and are worthy of the time and effort of health department directors in local communities. The main disadvantage of the program has been the lack of utilization of the school nursing staff on a 12 month basis. This problem has kept a generalized public health nursing program from evolving as rapidly as we would wish. We are hopeful, however, that the advantages of the overall program will outweigh this disadvantage.

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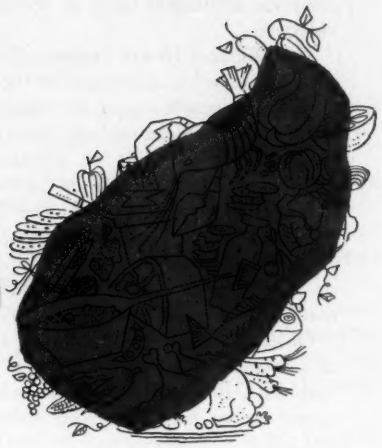
RADIATION Pasteurization



B. S. SCHWEIGERT, Ph.D.

RADIATION pasteurization relates to the use of beta or gamma rays in treatment of foods at dose levels below those required for sterilization. The major objective of radiation pasteurization is to extend the shelf life of food products by destroying most bacterial contaminants. Since the irradiation dosage level of 5,000 to 1,000,000 rads is used, the possible development of off flavors or changes in color and texture associated with the use of sterilizing doses (3,000,000 to 5,000,000 rads) is minimized. Use of these low levels of radiation, therefore, offers considerable promise in the application of atomic energy to food preservation. Actually, the term "pasteurization" is a misnomer since this has been used for many years to reflect a degree of heat treatment of milk and other foods below sterilization levels. In irradiation treatments, no heat is used but the term "radiation pasteurization" has become widely used for simplicity in referring to levels of irradiation treatment below sterilizing dosages.

Advantages

Potential advantages of radiation pasteurization as compared to sterilization are

1. Increased flexibility when this technique is used in connection with other processing or preservation concepts.

2. Great reduction of quality changes of an undesirable nature.

3. Reduction of changes in wholesomeness attributable to radiation treatment.

4. More economy since a reduced degree of treatment is required. This would permit an increased volume of foods to be processed in a given size radiation source or it would allow a less expensive smaller source to be used for the same volume of food processed. It is possible that flexibility in the size and type of source would permit the use of a mobile irradiator that could be moved at minimal expense from one processing operation to another.

Applications

Major future applications of radiation pasteurization are in insect control in grains and other foods, sprout inhibition of potatoes in storage, control of trichinae in meats, and extension of shelf life of foods kept under refrigeration or, in certain cases, at ambient temperatures. For insect control and sprout inhibition, relatively low radiation levels are needed (5,000 to 20,000 rads) but the major limitation to wide application appears to be economic, since the evaluation of any new processing method must be related to a reduced cost for equivalent treatment or to improvement of the quality of the product. In trichinosis control, approximately 15,000 rads treatment is effective. However, trichinosis is effectively controlled through existing regulations by alternate

In the future, radiation pasteurization may extend the shelf life of many meats and vegetables and balance the diet of the world year-round. Potatoes will be sproutless and fresh tomatoes and strawberries will be available in wintry, northern areas.

methods of treatment in federally inspected meat processing operations. It would seem that trichinal infections in man resulting from the consumption of improperly cooked pork would occur primarily as a result of local slaughter which ordinarily would not be accessible to radiation treatments. Thus, this application may have limited potential.

Currently, the major potential appears to be in categories concerned with extension of the shelf life of foods kept under refrigeration. In most cases, this means uncooked foods such as fresh fruits, vegetables, meats, poultry, and fish. There may also be a number of applications which involve a combination of processing treatments, for example, mild heat processing plus low levels of irradiation treatment.

Another possible combination of treatments would be the use of low levels of irradiation and antibiotic treatment to extend the shelf life of fresh meats. A summary of two series of experiments illustrating these points is shown in Tables 1 and 2. Combination of irradiation plus antibiotic treatment is effective in controlling bacterial growth, but yeasts and molds grow more rapidly when most of the bacteria are destroyed.

Specific chemical and physical change studies, as well as wholesomeness studies, have not been extensively conducted on the low level treatments used in radiation pasteurization of foods. This is understandable since the more extensive changes noted with a sterilizing dose permit experimental studies to be carried out where the changes are of sufficient magnitude for measurement.

From data obtained, it appears that most of the chemical changes are directly related to the total radiation dosage used. The studies clearly show that minor undesirable changes occur at pasteurization levels. Although no adverse effects on wholesomeness have been noted, it is possible that the use of low dosage will provide a greater margin of safety.

Nutrient losses attributable to irradiation treatment at low levels are small. The most promising application of low level radiation treatment of foods is in extending the shelf life of certain fresh fish products, shrimp and crab meat, poultry, and pre-packaged meats kept under refrigeration, and of fresh fruits and vegetables such as strawberries and tomatoes. In these cases, the range of radiation dosage likely is from 50,000 to 500,000 rads. For fresh foods of animal origin, the lesser dosage may be effective because most spoilage organisms of the pseudomonas type are extremely sensitive to radiation treatment. In cured meats, such as frankfurters or luncheon meats, a different bacterial flora and a higher radiation treatment is required (500,000 rads) to give significant increase in shelf life.

Milk and egg products appear especially sensitive to irradiation treatment, particularly because undesirable flavors and odors are produced. The major objective in preservation of fresh fruits and vegetables is to minimize the growth of molds to extend the marketing time. Higher radiation treatments are undesirable also because of softening effects on the food and, in some cases, because of undesirable changes in color. Successful application of radiation pasteurization also could mean expanded markets for fresh fish products or fresh fruits and vegetables.

Research Problems

A number of research problems merit further investigation. These include:

1. More complete knowledge of the dynamic bacteriological and biochemical changes that occur in foods from production to consumption.

2. More intimate knowledge of the nature of the microbial flora associated with food spoilage. Radiation effectively destroys the major spoilage

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TABLE 1.—*Effect of Gamma Radiation (10^5 Rad) and Oxytetracycline (10 ppm.) on Bacterial Count of Beef Round at 2 C.*

Treatment	Bacteria per Gm. (x 10^6) 0 days	8 days	14 days	20 days
Control	90	700,000	4,000,000	
Irradiation	0.5	100	60,000	800,000
Irradiation + oxytetracycline	0.5	1	60	2,000

TABLE 2.—*Effect of Gamma Radiation (10^5 Rad) and Oxytetracycline on Yeast Count in Ground Beef at 2 C.*

Treatment	Yeasts and molds per Gm. (x 10^6) 0 days	12 days
Control	40	75
Irradiation	6	850
Oxytetracycline	40	100,000
Irradiation + oxytetracycline	6	10,000

microorganisms, but researchers need to be concerned about the nature of organisms that ultimately spoil these foods, particularly from the public health standpoint.

3. Careful comparison of the potential gain in quality by extending the period of marketing as compared to the possible quality losses. For example, radiation may reduce actual losses due to spoilage but there may also be deterioration associated with longer holding of the product prior to consumption. New marketing problems may also be serious, such the increased "drip" that occurs in fresh meats after irradiation when they are kept under refrigeration in the pre-packaged form.

4. More information on the interaction with other processing treatments. For example, it will be necessary to know the time and temperature of heat treatments that might be used in connection with irradiation.

5. Variations in the product attributable to specific treatment. This relates in part to uniformity of dose application of radiation to the food as well as to influence of stage of maturity, varieties, and packaging material.

6. Further evaluation of the wholesomeness of the treated foods will undoubtedly be needed in some cases as specific procedures are devised. A major problem is not anticipated in this field but adequate data will be needed to substantiate the safety of any proposed procedures.

Perhaps two of the greatest contributions in the use of radiation pasteurization of foods are (1) the increased basic knowledge of the quality attributes of foods and the changes that occur with conventional methods of processing such as heat treatment and freezing, and (2) the expanded research in this field, which has caused outstanding investigators to conduct work on foods and to train outstanding graduate students for further research in nutrition, food science, and related fields.

Summary

The extension in shelf life observed to date with radiation pasteurization of certain products such as fish and certain fruits, poultry, and meats warrants further study. We should not lose sight of the fact that there is an outstanding food supply in this country. Other methods of food preservation show great potential for expanded application, primarily in freezing and freeze dehydration of foods. In terms of the international aspects of the peace-time uses of atomic energy, pasteurization and sterilization treatment of foods may have even greater impact in countries now under development. Certainly, irradiation will be one important alternative to consider in improvement of processing procedures. This is because of its potential ability to reduce waste and to conserve the nutritive value of the foods in a more flexible marketing system. By providing a more flexible supply it can further improve the nutrition of the population.

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Spiritual Needs of the Elderly

The six spiritual needs of the older person are: (1) a determination to use what he has, and not pine for what is lost; (2) a satisfaction with what is past; (3) a satisfying concept of where he is going; (4) a conviction that he is still useful to himself and others; (5) a conviction that he is not a burden to those around him; and (6) the preservation of a sense of humor.—*The New Physician,* July, 1961.

For children with suspected renal disease, percutaneous renal biopsy is useful in diagnosis and prognosis, therapy, and research. With proper sedation, the children in the authors' series were cooperative. Complications were few.

Renal Biopsy In Children

W. F. Dodge, M.D.; C. W. Daeschner, M.D.; J. C. Brennan, M.D.; and H. Rosenberg, M.D.

STANDARD EXAMINATION of a carefully collected specimen of urine remains the most useful means of diagnosis in clinical renal physiology and pathology. There are times, however, when despite repeated careful examination of the urine, the persistence of abnormal findings, even though minimal, remains a diagnostic and/or prognostic enigma.

One of the recently developed techniques for evaluation of patients with suspected renal disease is the histologic examination of tissue obtained by percutaneous (needle) renal biopsy. The first percutaneous needle renal biopsy was reported in 1934 by Ball.[2] The first large series of kidney biopsies, 80 in number, was reported in 1951 by Iversen and Brun.[14] In the intervening years, only a few biopsies were reported, but since 1951 reports of experience with some 4,000 biopsies have appeared in the literature. About 230 biopsies have been reported in children.

Since July, 1958, the percutaneous method of renal biopsy has been utilized by the authors as an adjunctive method in the study of children with renal disease. In some, the renal histology has been studied during several phases of the disease by means of serial biopsies. This report covers the authors' experience over the two year period ending in July, 1960, during which time 134 biopsies in 100 children between the ages of 16 months and 16 years were made.

Method

The biopsy technique used is similar to that described by Kark et al.[17] Prior to biopsy, the parents are carefully questioned for history of a bleeding tendency in the child; a Lee-White clotting time test is performed as a screening procedure for defects in the clotting mechanism; and an intravenous pyelogram is done for relative localization of the kidneys and to ascertain that the child has two functioning kidneys. The patient is sedated 45 minutes prior to the time of biopsy with intramuscular Demerol, 50 mg. per square meter of body surface area, and Nembutal, 90 mg. per square meter of body surface area.

The child is placed in the prone position on a firm surface with a sand bag under his upper abdomen to "fix" the kidney. The last rib and paraspinal muscles are palpated and in the triangle they form, a skin wheal of one per cent procaine is placed, following which the deeper tissues are infiltrated. A number 22 spinal needle is used as the "exploring" needle. When this exploring needle enters the outer portion of the renal cortex, movement of the kidney with respiration produces a paradoxical motion of the head of the needle. A small skin incision is made and the biopsy needle (Franklin modification of the Vim-Silverman) is inserted to the depth previously ascertained by the exploring needle and the biopsy taken. The child is kept at bed rest in the supine position for 24 hours.

The biopsy specimens are sectioned by the usual technique for light microscopy. All tissues are stained with hematoxylin and eosin and a modification of the period acid (Schiff) method. Adequacy of the biopsy is defined by several investigators[17, 18] as the presence of five or more glomeruli. Sala[21] has demonstrated a better than 85 per cent correlation of such a biopsy with the whole kidney in diffuse renal diseases.

The authors were successful, by the above criteria, in obtaining 119 adequate renal biopsies in 98 children (Table 1). These patients are classified in Table 2 according to their clinical and histologic diagnoses.

Indications

General areas in which the renal biopsy has been found to be useful are listed in Table 3. Although certain tests of renal function, such as the determinations of glomerular filtration rate, are at times useful in the patient who presents a diagnostic problem, it has been the authors' experience that the histologic change antedates functional loss and that the renal biopsy is a more sensitive index of the presence of renal disease.

Under certain circumstances the selection and evaluation of response to therapy depends upon a knowledge of the exact histologic lesion. Renal biopsy has been helpful in selection of patients with nephrotic syndrome in whom glucocorticoid therapy is likely to be helpful. Other investigators[15] have used the biopsy in patients with pyelonephritis, both to obtain cultures and to assess more specifically the results achieved by antimicrobial therapy. Finally, the serial renal biopsy has been useful in studying the natural course of renal diseases in the living subject.

Contraindications

With the accumulation of experience and interest in the renal biopsy, the number of absolute contraindications (Table 4) has decreased. At one time, bacterial infection of the kidney was included, however, kidney biopsy in these patients has been associated with no increase in morbidity.[6] Few children, even the youngest, are uncooperative. The apparent painlessness of the procedure is impressive.

Most complications have been those associated with hemorrhage into the perirenal tissue or into the renal pelvis. Therefore, careful history concerning bleeding tendency and studies of clotting mechanism are important. The biopsy is contraindicated in a patient receiving heparin or in one to whom its administration is soon to be begun. A rapidly rising blood urea nitrogen level often is associated with an increased tendency to bleeding, and significantly increases the risk of needle biopsy. This problem is encountered primarily in those patients for whom

TABLE 1.—*Success and Failure of Attempted Biopsies.*

Biopsies attempted	134
Adequate renal tissue obtained	119
Inadequate renal tissue obtained	9
No renal tissue obtained	6
Average number of glomeruli in adequate biopsies	20 (range 5-55)

TABLE 2.—*Clinical and Histologic Diagnoses Resulting from Biopsies.*

Diagnosis	No. patients	No. biopsies
Acute glomerulonephritis	24	31
Chronic glomerulonephritis	9	12
Collagen diseases	13	16
Benign proteinuria	3	3
Benign hematuria	1	1
Essential hypertension	2	3
Juvenile diabetes mellitus	5	5
Nephrotic syndrome	30	37
Miscellaneous (pyelonephritis, renal tuberculosis, sickle cell disease, Lowe's syndrome, malignant lymphoma, nephrocalcinosis, vitamin D resistant rickets)	11	11
Totals	98	119

TABLE 3.—*General Areas of Usefulness of the Renal Biopsy.*

1. Diagnostic and Prognostic:
   a. Unexplained and persistent hematuria and/or proteinuria.
   b. Atypical acute nephritis.
   c. Atypical acute nephrotic syndrome.
   d. Collagen diseases.
2. Therapeutic:
   a. Selection of patients for treatment.
   b. Evaluation of response to treatment.
   c. Determination of influence of potentially nephrotoxic drugs on the kidney.
3. Research:
   a. Natural history of renal disease or of systemic diseases which may involve the kidney.
   b. Pathogenesis of chronic renal diseases.
   c. Relation of renal structure to function.

TABLE 4.—*Contraindications to Percutaneous (Needle) Biopsy of the Kidney.*

1. Uncooperative patient after proper sedation and local anesthesia.
2. Single kidney or its equivalent (severe damage to one).
3. History of bleeding tendency or the finding of a defect in the clotting mechanism.
4. Rapidly increasing blood urea nitrogen level.

extrarenal dialysis is contemplated, and where kidney biopsy is being considered to assess the possibility of a reversible lesion.

Recently[24] it has been suggested that the patient with marked reduction in blood volume, often associated with extreme edema, is a poor candidate for biopsy.

Complications

The complications encountered in this series are listed in Table 5. The one perirenal hematoma occurred in a child who was admitted in acute anuria

TABLE 5.—*Complications Encountered in 134 Biopsies.*

Perirenal hematoma	1
Transient flank pain and mild blood pressure elevation	2
Gross hematuria	6
Total	9

and in whom no history of previous renal disease could be elicited. He died after 22 days of total anuria. On the tenth day of anuria a renal biopsy was performed to determine the etiology and possibility of a reversible lesion being present. The biopsy revealed generalized severe diffuse chronic glomerular destruction. The blood urea nitrogen level, though markedly elevated, was rising slowly at the time. Shortly after biopsy the patient complained of flank pain, and approximately eight hours after biopsy he had a precipitous fall in blood pressure. The latter responded to transfusion with whole blood. The patient died 12 days later. At the time of postmortem examination, the biopsy findings were confirmed and, in addition there was an organizing perirenal hematoma.

Only an occasional patient does not have microscopic hematuria for the first 8 to 12 hours following biopsy, and this microscopic hematuria is looked upon as an expected finding rather than a complication. In one patient there was gross hematuria of longer than 24 hours' duration. In one other patient, the gross hematuria occurred three days after biopsy, following a fall and trauma to the flank area. Gross hematuria was present in one urine specimen only, and subsequent specimens did not reveal even microscopic hematuria. In three of the remaining four patients, gross hematuria was present in only the first urine specimen after biopsy; in the fourth, the gross hematuria, mainly small clots, persisted for 12 hours after biopsy.

Results

Acute and Chronic Glomerulonephritis.—The etiology of persistent glomerulonephritis has been a source of much speculation. Opinion has been divided primarily into two camps. Some investigators[4, 13] believe that the disease begins as acute glomerulonephritis, but a past history of typical acute hemorrhagic glomerulonephritis is rarely obtained. These investigators suggest that the patients in question had unrecognized acute glomerulonephritis. Many physicians agree that of the many children with classical acute glomerulonephritis, rarely does one develop chronic nephritis. It is the belief of this latter group[1, 12] that acute and chronic glomerulonephritis are, in most patients, separate entities, and that virtually all children with acute glomerulonephritis heal completely. It is this controversy which has prompted us to begin a long term study of children with acute and chronic glomerulonephritis by means of serial biopsy.

The signs and symptoms of acute glomerulonephritis usually subside within a period of six to nine months (Table 6). Preliminary information obtained by serial biopsy suggests that with passage of time there is a typical pattern of change in the renal histopathology of patients with acute glomerulonephritis.

TABLE 6.—*Comparison of Acute and Chronic Glomerulonephritis.*

Condition		Acute (13)	Chronic (9)
Hypertension			
Patients affected at onset		12	3
Duration (days)	average	28	—
	range	0-94	0-792
Proteinuria			
Patients affected at onset		13	9
Duration (days)	average	62	748
	range	4-150	506-883
Hematuria			
Patients affected at onset		13	4
Duration (days)	average	100	645
	range	14-416	293-883
Follow up			
Average number of days from onset of symptoms		386	828

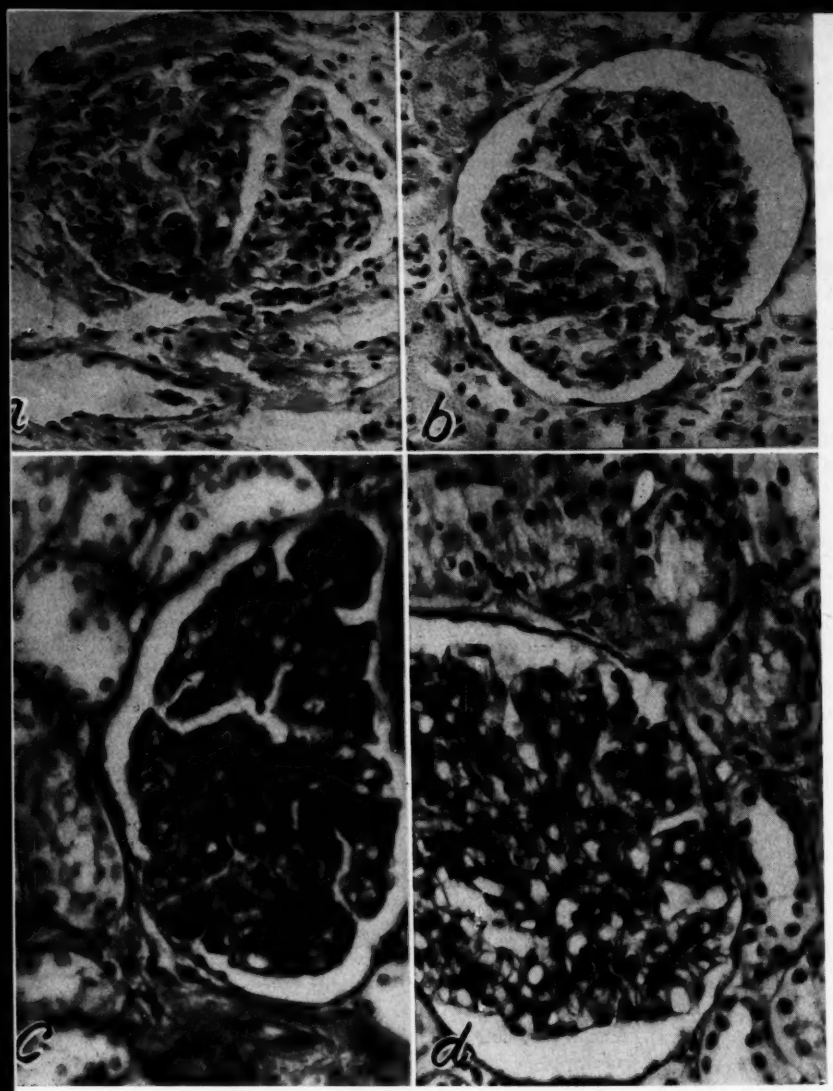

Fig. 1a. The section, stained with hematoxylin and eosin, shows acute glomerulonephritis 2 weeks after onset. The cellular glomular tuft is enlarged and has inflammatory cell infiltrate.

b. In this section taken from a patient with acute glomerulonephritis 3 weeks after onset, enlarged cellular glomerular tuft, inflammatory cell infiltrate, and adhesions are shown. Hematoxylin and eosin stains were used.

c. This section was stained with para-aminosalicylic acid; it shows chronic glomerulonephritis with moderate diffuse glomerular capillary basement membrane thickening and mild cellular proliferation. Duration of the renal disease is at least 18 months.

d. Nephritis of anaphylactoid purpura with normal glomerular tuft is shown. Para-aminosalicylic acid stain was used.

In the first week or two there is enlargement and hypercellularity of the glomerular tuft (Fig. 1a). About three to four weeks after onset there is the addition of axial stalk thickening and beginning adhesions (Fig. 1b). These changes persist for several months. By the sixth to ninth month, there is a disappearance of the hypercellularity, most glomeruli show residual axial stalk scarring, and a few show adhesions.

Of the 24 children with acute glomerulonephritis, 13 have been followed for a sufficient period of time for clearing of abnormal urinary findings to be considered absolute. In Table 6 these patients are contrasted with nine children in whom the diagnosis of chronic glomerulonephritis was made. In eight of the latter group, this diagnosis was made, at least in part, because of persistence of abnormal urinary findings for 18 months or longer.

In four of these nine children, the clinical diagnosis of acute glomerulonephritis was made at onset of their symptoms, prior to renal biopsy. These biopsies differed from the remaining five in this group, primarily by the presence of hypercellularity. This is particularly interesting in light of the findings of Earle and Jennings[9] in adults with acute glomerulonephritis. These investigators suggest that, "chronic diffuse proliferative (hypercellular) glomerulonephritis is always the result of poststreptococcal acute glomerulonephritis that failed to heal". It is our belief that the chronic nephritis manifested by these four patients did begin as acute glomerulonephritis and that the finding of failure of clearing of hypercellularity at the usual six to nine months, as discussed previously, probably heralds progression of the acute glomerulonephritis to chronic glomerulonephritis (Fig. 1c).

In two other children in the group with chronic glomerulonephritis, because of repeated episodes of gross hematuria, the erroneous diagnosis of acute glomerulonephritis had been made on several occa-

sions. Other investigators[21] have shown that acute exacerbations in patients with underlying chronic renal disease may clinically mimic acute glomerulonephritis.

The remaining two children in the group, because of occurrence of dysuria, proteinuria and pyuria early in their course, were thought to have a urinary tract infection. Bacteriologic studies, however, did not support this diagnosis.

Collagen Diseases.—Classification of the children with collagen diseases is shown in Table 7. All three of the children with *nephritis of anaphylactoid purpura* received a course of glucocorticoid therapy, beginning 9, 63, and 50 days after onset, respectively. All had gross, followed by microscopic, hematuria after the first of several episodes of hemolytic anemia. The first kidney biopsy was performed approximately four months later and a second kidney biopsy after an additional six months. Urinalysis has never been abnormal. No abnormal histologic findings were present in the first biopsy specimen, while the second showed diffuse hypercellularity. Other investigators[19] have commented upon the occasional delay in occurrence of renal involvement sometimes seen in this disease, and feel that renal involvement may be present for some time before it is reflected by abnormal urinary findings.

In the first child with *dermatomyositis,* the disease had been inactive for approximately six months prior to biopsy while in the second it was still active at the time of biopsy. The first child did not have an abnormal urinalysis while the second had persistent proteinuria. Neither had hypertension. Kidney biopsy (Fig. 2a) in the first child showed generalized moderate diffuse glomerular capillary basement membrane thickening, while in the second all but a few glomeruli were completely hyalinized and these few showed marked basement membrane thickening.

TABLE 7.—*Collagen Diseases.*

Disease	No. children	No. biopsies	Time between onset and first biopsy
Nephritis of anaphylactoid purpura	3	5	35 d, 42 d, 22 m
Disseminated lupus erythematosus	1	2	29 m
Dermatomyositis	2	2	41 m, 94 m
Active rheumatic myocarditis	2	2	28 d, 29 d
Plasma cell hepatitis	2	2	21 m, 27 m
Unclassified	3	3	88 d, 4 m, 28 m
	13	16	

d — days
m — months

lasting three months. In two, in whom a concentrated urinalysis no longer shows abnormality, the hematuria has persisted for 3 and 20 months, respectively. As a general rule, the histologic changes produced by most diseases of the kidney involve all portions of a given single glomerulus rather uniformly in a diffuse manner. However, when the changes are marked in only a part of the glomerular tuft, they are referred to as being focal in nature. This is a fairly typical finding in anaphylactoid nephritis.[5] The third child still has microscopic hematuria eight months after onset and this is the one in whom the most marked histologic abnormality was found by biopsy. This abnormality consisted of a focal thickening of the glomerular tuft and axial stalk and cellular proliferation (Fig. 1d). A repeat biopsy, eight months after onset while the patient still was being treated with glucocorticoids, shows a further progression of her renal lesion. In contrast to the other two children, this child had hypertension throughout the course of her disease. The persistence of hypertension may be a means by which one can predict clinically that the disease is producing progressive histologic alteration of the kidney.

The diagnosis of *systemic lupus erythematosus* was made on the basis of histologic changes found in this child's spleen, which was removed one year

Plasma cell hepatitis has also been called lupoid hepatitis and, when accompanied by delay of onset of adolescence in young females, Kunkel's Syndrome.[3] Neither of these girls had been hypertensive; in one urinalysis has been consistently normal while in the other proteinuria first appeared shortly before biopsy. Both had abnormal histologic findings by kidney biopsy. There were generalized mild diffuse glomerular capillary basement membrane and axial stalk thickening in the one without proteinuria, and more marked basement membrane thickening, axial stalk thickening and some cellular proliferation in the one with proteinuria (Fig. 2b). The clinical picture and liver biopsy findings also were more severe in the second child.

The clinical pictures in the final three children could not be classified adequately into one of the described syndromes. Skin-muscle biopsy in each of these children was non-revealing. The first child had

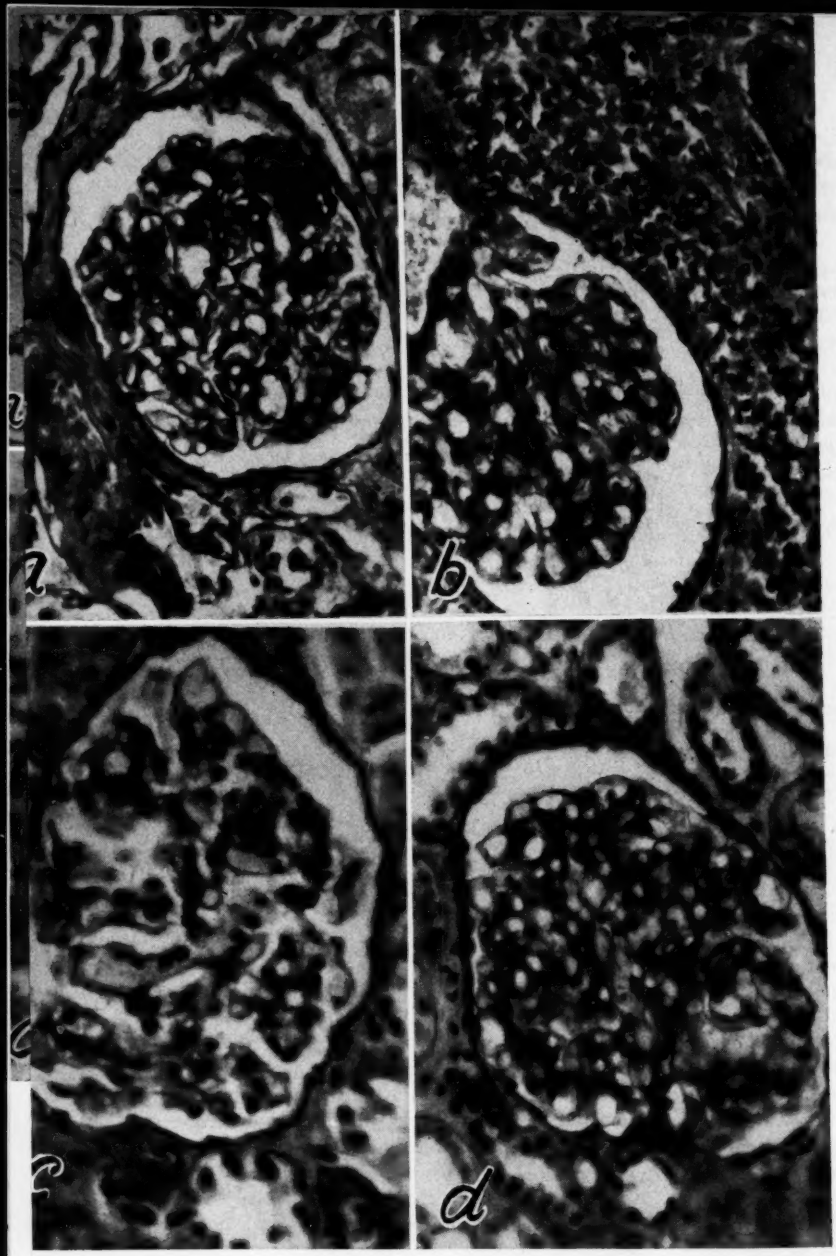

Fig. 2a. Dermatomyositis with moderate diffuse glomerular capillary basement membrane thickening is shown. Para-aminosalicylic acid stain was used in all sections pictured in Fig. 2.

b. Plasma cell hepatitis is shown with moderate diffuse glomerular capillary basement membrane thickening, mild cellular proliferation, and periglomerular mononuclear cell infiltration.

c. Mild diffuse glomerular capillary basement membrane thickening in nephrotic syndrome is shown.

d. Nephrotic syndrome is shown with associated moderate diffuse glomerular capillary basement membrane thickening and mild cellular proliferation.

fever, myalgia, and generalized exfoliative dermatitis. These symptoms cleared with glucocorticoid therapy, but recurred when it was discontinued. The child was not hypertensive and did not have an abnormal urinalysis. His kidney biopsy was performed during the second glucocorticoid induced remission and showed a generalized mild diffuse axial stalk thickening and hypercellularity. The second child had three episodes of fever and pericardial effusion, accompanied by constant proteinuria, even during the time of remission of the other findings. She was never hypertensive. Her kidney biopsy was performed following recovery from the second episode. It showed a generalized mild diffuse hypercellularity and karyorrhexis. The third child had fever, ascites, pleural and pericardial effusion, and massive serpiginous bullous involvement of the skin. She became relatively asymptomatic only after prolonged massive glucocorticoid therapy, and it was necessary to administer steroids constantly to maintain even a partial remission. She was hypertensive and had marked proteinuria throughout the course of her disease. Kidney biopsy showed the majority of her glomeruli to be hyalinized, while the rest were fibrotic and showed adhesions to Bowman's capsule.

Collagen diseases, as the name implies, are those which involve the collagen, or ground substance or basement membranes of the body. They are classi-

fied into syndromes according to the organ or organ system principally and most severely involved. It is not surprising then to find involvement of the basement membrane of the renal glomerular capillaries to a varying degree in most of these children. There seems to be some correlation between the presence or least the persistence of proteinuria and the degree of renal involvement.

Benign Proteinuria and Hematuria.—The persistence of proteinuria and/or hematuria, almost without fail, is indicative of renal disease. The authors have seen three children with persistent proteinuria and one with persistent hematuria, however, in whom this may not be true in that their renal biopsies showed only very minimal histologic changes. For the present at least, we continue to list the "benign" in quotation marks.

The proteinuria was found originally at the time of a routine urinalysis and had existed for 2, 3, and 11 months, respectively, prior to biopsy. Intravenous pyelograms and serum chemistries were within normal limits, urine cultures were negative and all were normotensive. All three children are of average size for their age and have shown a normal growth pattern. The first two have an absence of protein in their "night" urine specimen, even urine of 1.025 or greater specific gravity, and are thought to be representative of orthostatic albuminuria. The third has persistence of proteinuria in both the upright and supine positions.

The child with benign hematuria had, during an 18 month period prior to biopsy, five episodes of gross hematuria, three of which were associated with upper respiratory infections. He has not been free of microscopic hematuria since the first episode, but has never been hypertensive. His growth pattern has remained normal, serum chemical studies and intravenous and retrograde pyelograms are within normal limits and repeated urine cultures have been sterile.

Essential Hypertension.—Two children with hypertension were seen. Exhaustive attempts to determine the underlying etiology were unsuccessful. The patients are classified as having "essential" hypertension. The first child originally was noted to have hypertension in association with irritability, nausea, and vomiting, and these symptoms disappeared when her blood pressure returned to normal. She has had two additional episodes associated with similar symptomatology, but between episodes she is asymptomatic and normotensive. These episodes have lasted from three to six weeks. She has never had an abnormal urinalysis. Biopsy of the right and left kidney, almost two and one-half years after onset and during the third episode, showed no abnormal histologic changes.

The second child was first noted to be hypertensive approximately three years prior to biopsy. His blood pressure has been consistently in the range of 140-150/80-90 during this period. Urinalysis first became abnormal six months prior to biopsy and since that time he has had persistent proteinuria. His kidney biopsy showed hypertrophic vascular changes of a moderate degree and mild to moderate glomerular capillary basement membrane thickening, particularly at the hilus. These changes are thought to be secondary to the hypertension. Serial renal function studies have been within normal limits.

Juvenile Diabetes Mellitus.—Several reports[8, 10] have appeared in the literature concerning the evaluation of renal lesions in adults with diabetes mellitus. Both the duration of diabetes and the level of control of the diabetes have been suggested as causative factors of the nephropathy. Four children with juvenile diabetes mellitus in relatively poor control, were examined by biopsy. Urinalysis was not otherwise abnormal, none were hypertensive and they had had their diabetes for 10, 23, 25, and 30 months, respectively. We were surprised to find that all showed abnormal histologic changes: generalized diffuse hypercellularity, focal basement membrane thickening, and fibrinoid drops in the first; generalized focal basement membrane thickening, Bowman's capsular thickening and tubular atrophy in the second; generalized focal basement membrane thickening, diffuse hypercellularity, and interstitial nephritis in the third; and, generalized mild focal basement membrane thickening and diffuse hypercellularity in the fourth. Because adults with latent diabetes have also been found[8] to have abnormal renal histologic changes, we elected to biopsy a fifth child within the first month of his diabetes. It showed focal hypercellularity and basement membrane thickening, most marked at the hilus. The latter finding has been reported[11] to be the earliest change found by light microscopy in diabetic nephropathy.

Idiopathic Nephrotic Syndrome.—Thirty-seven renal biopsies were performed in 30 children with the nephrotic syndrome. Eleven biopsies were performed within the first four months after onset of symptoms; 19 were first performed at a later date, and 7 were follow-up studies in children previously biopsied.

In 18 children, glucocorticoid therapy was associated with successful clearing of proteinuria and remission of other clinical and laboratory evidence of the disease. The biopsy specimens in five showed normal glomeruli by light microscopy, generalized mild (Fig. 2c) to moderate (Fig. 2d) diffuse capillary basement membrane thickening in 11, and basement membrane thickening and accentuation of the

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lobular pattern in two. These histologic findings have been previously labeled as Ellis Type II changes.[10] The majority of these children received their initial intensive steroid therapy within the first four months after onset of symptoms and the degree of histologic change appeared to be proportional to total duration of proteinuria.

In 12 children glucocorticoid therapy was unsuccessful in that proteinuria was either resistant or cleared for only a short period. In six cases, histologic changes were characterized by glomerular tuft and axial stalk scars, adhesions and crescents. These histologic findings have been previously labeled as Ellis Type I changes.[10] Approximately half of these children received their initial glucocorticoid therapy within the first four months after recognition of their disease. In the remaining 6 children, Ellis Type II histologic changes were found. These children, however, had either received their initial glucocorticoid therapy later than four months after onset of symptoms, or their therapy was inadequate by the presently suggested regimen.[7]

Summary

During a two year period, the authors have performed 134 percutaneous (needle) renal biopsies and obtained tissue adequate for histologic examination in 119. This compares well with other reports, and as with the other investigators, failure to obtain adequate biopsies was primarily in the first few months of experience. There has been one serious complication, a perirenal hematoma. Other investigators[13, 17, 20, 22] also have reported this complication and state that in patients with reversible renal disease, renal function was not impaired and that the mass gradually disappeared as the hematoma reabsorbed.

Persistent proteinuria and/or persistent hematuria, no matter how mild, are evidence of abnormal renal histology. If these urinary findings are due to acute glomerulonephritis, they usually disappear in six to nine months. However, if the proteinuria or hematuria are due to chronic renal disease, they persist indefinitely, though the child may show no other evidence of illness.

Collagen diseases, though they may not involve the kidney primarily, often are associated with changes in the glomerular capillary basement membrane. The degree of renal involvement is reflected by presence or persistence of proteinuria.

The authors were surprised to find histologic evidence of renal involvement in the five children with juvenile diabetes mellitus. Since all showed some degree of abnormal renal histology, and since four were selected for biopsy because of relatively poor control, correlation between histologic changes found and level of control or duration of the diabetes is not possible. However, there did appear to be some degree of linear correlation with duration.

To achieve successful clearing of proteinuria and remission of all other clinical and laboratory evidence of the idiopathic nephrotic syndrome, (1) the patient *must* have an Ellis Type II lesion, and (2) initial administration of *adequate* glucocorticoid therapy *should* begin within the first four months after recognition of the disease. Although there are exceptions to the second rule, we have encountered no exceptions to the first.

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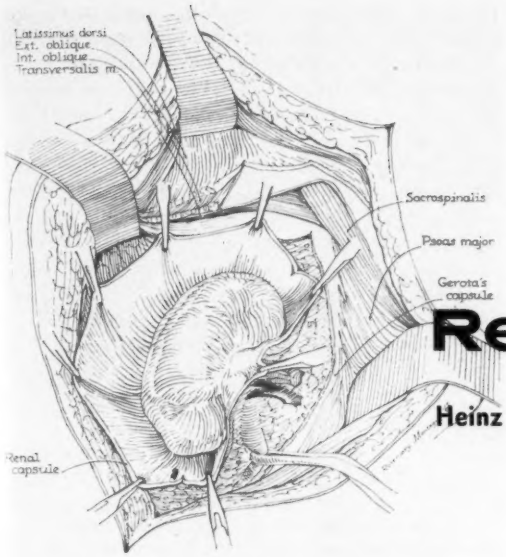

Renal Hydrocele

Heinz B. Eisenstadt, M.D., and James Petry, M.D.

RENAL HYDROCELE, first described by Hawkins in 1834,[4] is a rare lesion, unknown to the majority of physicians who are not urologists. Defined by Woodruff and Rupert,[22] "Hydrocele renis is a disorder in which the kidney is surrounded by an abnormal fluid accumulation just as the testicle is encysted in scrotal hydrocele". This fluid is enclosed by the distended true capsule of the kidney.

The disorder also has been called perirenal hydronephrosis, pseudoperihydronephrosis, hydroperinephrosis, perirenal cyst, perinephritis serosa, and renal hygroma.[1, 3-6, 8-11, 13, 15, 17-19, 21, 22] Rennen coined the name "hydrocele renis" in 1923[16] because of the resemblance of the disorder to the hydrocele of the tunica vaginalis of the testicle. In contrast, however, to scrotal hydrocele which is filled with lymphatic fluid, the contents of renal hydrocele may vary from case to case and may be composed of lymph, liquefied blood, urine, serous and purulent exudate, or a mixture of any of these substances.

Although definite diagnosis of renal hydrocele requires surgery, this entity should be considered when a renal or perirenal mass appears in a healthy individual, especially a young person. Although the condition is usually post-traumatic, a history of trauma is not always obtainable because an injury that strips the renal capsule from the parenchyma without tearing it is usually mild. Months may pass between the trauma and development of the lesion. If damage to the kidney is not serious, surgical treatment should be conservative because a normally functioning kidney may be found after removal of surrounding fluid.

Etiology

The main etiologic factor seems to be direct or indirect trauma. However, the disorder may occur spontaneously in diseased kidneys, and it has been described by Campbell as a congenital lesion of infancy with lymphatic fluid filling the sac.[2]

Symptoms

The symptomatology varies with the severity of the renal injury, associated extrarenal damage, and presence of secondary complications such as blood loss, shock, and infection. The typical patient has little or no symptoms although he may complain of fullness, heavy feeling, soreness or pain in the flank, the back, or the side of the abdomen. A history of trauma may not be obtainable because of the mildness of the injury. In addition, a silent period of weeks or months may pass before the onset of symptoms. In such cases, an abdominal mass has been accidentally discovered by the patient or the physician.

Physical Examination

Usually the patient does not appear ill unless secondary complications have developed. The only finding of significance is a large—sometimes huge—

hard mass in one side of the abdomen. This mass may be smooth or irregular, tender or not tender on pressure, immovable or slightly movable on ballottement and with respiration. There is usually no anemia, cachexia, or temperature elevation, but sometimes there is a moderate to severe degree of hypertension.

Laboratory examinations are equally non-revealing. Urinalysis may show a few red or white cells but is usually negative. Blood cell count and urea nitrogen level and phenolsulfonphthalein tests are normal.

The roentgen-ray examination may show various abnormalities. Obliteration of the normal renal and psoas contours and displacement of adjacent organs by a soft tissue mass in the kidney region is always demonstrable. Frequently, the renal pelvis, calyces, and upper ureter are displaced, compressed, and distorted. Sometimes the excretory renal structures cannot be viewed and only the lower portion of the ureter is filled with opaque substance in retrograde fashion. Occasionally demonstrated is an extravasation of dye into an abnormal cavity communicating with a calyx or the pelvis,[1] but in no case has the whole sac been opacified with contrast medium.

Differential Diagnosis

The differential diagnosis includes any renal or perirenal mass such as a perinephritic abscess; renal and perirenal hematoma; hydronephrosis (including the traumatic type); renal, perirenal, and abdominal cysts; a greatly distended gallbladder; diverticula of the renal pelvis, renal tuberculosis and lymphoma; and particularly a variety of benign and malignant tumors of the kidney and adjacent structures. Although most renal hydroceles occur in normal kidneys, they may be associated with hydronephrosis, caliectasis, tumor, and tuberculosis;[5, 7] therefore, the presence of such disease does not exclude this entity. Clinical and roentgenographic findings of hydrocele may simulate malignant tumor but because of the patient's good general health and youth, the presence of malignancy is unlikely. Renal hydrocele is not always easily distinguishable from subcapsular hematoma,[12] but this localized solid blood clot should be differentiated from the cystic sac surrounding the kidney. In addition, subcapsular hematoma is associated with anemia and hematuria, which are usually absent in renal hydrocele.

Treatment

Most cases have been reported before the era of modern surgery; therefore, the previously recommended multiple-stage approach, which consisted of drainage procedures followed by nephrectomy, are obsolete. Early surgical exploration is mandatory for verification of the diagnosis. In addition, early drainage and excision of the sac as completely as possible probably will be curative in most cases. If the kidney is not seriously damaged, it should be preserved; if it is destroyed, nephrectomy should be performed immediately. Formerly most cases of renal hydrocele were a formidable challenge to the urologic surgeon, and frequently eventuated in nephrectomy, and even death. A patient seen by the authors, however, recovered quickly after simple drainage and excision of the capsule. His kidney was preserved and its function was rapidly restored to normal.

Case Report

C. H., a 15 year old male, was first seen Nov. 1, 1960. He complained of a dull pain in the right upper abdomen which radiated to the back and to the flank. He attributed his complaints to a slight injury received while he had been playing football eight days previously. The pain did not start until three days after the alleged injury. Hematuria, urinary frequency, or dysuria were not present.

About three months previously, the patient had been involved in a motor scooter accident which had resulted in bruises and abrasions without serious organ damage. He had been examined in the emergency room of a local hospital, and moderate tenderness of the right upper part of the abdomen had been recorded. No urinalysis had been performed; however, no hematuria, fever, or anemia had been noted. The patient had not been disabled, and had begun football practice shortly thereafter.

At the time of the second examination, the almost six foot tall, 190 pound, well-developed, muscular boy appeared in excellent physical condition. The only abnormal finding of significance was a mass approximately the size of a basketball in the right upper portion of the abdomen and flank. It was not tender on pressure and moved slightly with respiration. The urine was grossly and microscopically normal. Temperature, pulse rate, and blood cell count were within normal limits. An initial blood pressure reading was 190/118 mm. of mercury, an unexpected finding since hypertension had not been recorded in previous examinations.

An intravenous pyelogram was performed immediately and showed a soft tissue mass in the right flank which was indistinguishable from the right renal shadow. It measured 11.5 by 17 cm. (Fig. 1). The right psoas shadow was obliterated. The right renal pelvis and calyces appeared flattened and displaced upward and medially. There was also medial displacement of the upper ureter without obstruction. The next day cystoscopy and right retrograde pyelography were performed. In spite of injection of Skiodan under pressure, the renal pelvis and calyces were not better visualized than after intravenous urography (Fig. 2).

On Nov. 3, 1960, surgery was performed and a smooth-surfaced firm mass measuring about 12 by 18 by 12 cm. was found. It was slightly movable, encapsulated, and easily dissected from the surrounding tissue. No inflammatory reaction or scar formation was noted. After careful dissection, the mass was recognized as a large cyst; it contained more than a quart of serosanguineous fluid, which had no uriniferous odor. After removal of all of the fluid, an apparently normal kidney was found inside the large cystic

Fig. 1.

Fig. 2.

Fig. 3.

cavity. The kidney was separated from its capsule except for its attachment at the hilus. The sac was excised, a large Penrose drain was inserted, and the wound was closed in layers. The postoperative course was uneventful. The blood pressure decreased to 130/70 mm. and has remained normal since the operation. On Nov. 25, the intravenous pyelogram was repeated (Fig. 3) and showed a normal functioning right kidney.

Comment

It is difficult to determine whether the first or second accident of the patient caused the renal hydrocele. Large perirenal fluid accumulations have been observed within days after injury. In this case, the mildness of the second accident and the absence of fresh or clotted blood in the sac suggest that the first trauma started the hydrocele, while the second added fluid to it and caused symptoms.

The mechanism of renal hydrocele has been much discussed in the literature. It is well known that the renal capsule can contract or stretch with changes in size of the enclosed kidney.[20] Particularly in young persons—the largest group of patients with renal hydrocele—the great elasticity of the capsule allows considerable distention before rupture occurs. Furthermore, Stirling[20] has shown that as long as the capsule is intact, the underlying parenchyma is protected to some extent against severe destruction by

trauma. Therefore, one must assume that in renal hydrocele the traumatic blow is just strong enough to separate a portion of the renal capsule from the organ without tearing it and without serious destruction. This localized separation is followed by extravasation of lymph and blood into the subcapsular space, which gradually strips the entire capsule from the cortex of the kidney. A secondary inflammatory reaction may sometimes increase the fluid contents. Any blood clot that may have formed will be absorbed or liquefied gradually. An admixture of urine may occur; however, this is possible only if the space communicates with some of the excretory channels—the renal pelvis, calyces, or microscopic ducts. Crabtree[4] has postulated that extravasation of urine occurs in all cases and that urinary obstruction is always present in such kidneys before a hydrocele develops. Such a mechanism is not well substantiated in the present patient or in several other patients previously reported in whose normal organs this entity apparently developed and in whom no admixture of urine could be detected in the hydrocele fluid.

Apart from the unusual mass that is the essential feature of renal hydrocele, the acute elevation of blood pressure in some patients requires comment. Hypertension has been observed after a variety of unilateral renal injuries, particularly in connection with subcapsular hematoma.[7, 12] The latter entity, as well as renal hydrocele, resembles closely the experiment of Page,[14] who produced hypertension by wrapping the kidney in cellophane, silk, or other material. It is remarkable that such severe and persistent blood pressure elevation can occur in a normal individual under those circumstances and that it can be abolished immediately by removal of the compressing fluid sac.

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Evaluation of Renal Tomography

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In the author's experience, renal tomography has been useful in distinguishing cysts from carcinoma of the kidney, without resort to surgical exploration. Films of this type are especially valuable in patients in whom age, poor general condition, or co-existing disease make operation inadvisable.

GREAT ADVANCES in opacification of renal parenchyma have been made in the relatively few years since the advent of excretory urography. In 1923 Osborne and his colleagues[3] at the Mayo Clinic first visualized the excretory system by means of oral and intravenous administration of large doses of sodium iodide solution. Rapidly thereafter, refinements in the form of organic compounds of high iodide concentration and low toxicity allowed highly detailed pyelograms to be obtained.

Between 1923 and 1947, many nephrograms were obtained, both naturally and artificially. Natural nephrograms are obtained when normally functioning renal tissue is subjected to acute obstruction, as with ureteral stones. Weens and Florence[6] obtained artificial nephrograms by artificial obstruction of the ureters and subsequent excretory urograms. The disadvantages of both techniques are readily seen. Among the disadvantages of plain nephrograms are that overlying gas or fecal contents, which nearly always are present, obscure details. Also, overlying abdominal organs often convey erroneous diagnoses. The chief advantage of renal tomograms is the ability to exclude all extraneous organs and gas from the desired plane of focus.

Nephrotomography was first described in detail by Evans[2] and co-workers in New York in 1954. The first known mention of renal tomograms, planograms, or laminograms, as they are variously called, after injection of intravenous contrast medium was made in 1942 by Pendergrass.[4] Probably the first preliminary studies, without published detailed technique, were those of Weens and Florence,[6] who in 1947 reported results of plain nephrograms and related use of laminograms.

This communication relates the author's experiences in the use of renal tomograms as a diagnostic aid of kidney lesions, with special emphasis on distinguishing cyst from tumor. Details of the technique can be obtained from Chynn and Evans[1] latest article on nephrotomography. For the most part, this technique has been successfully followed with few minor alterations.

Technique

1. Satisfactory tomographic levels are obtained for optimal depth of focus on both kidneys by preliminary films.

2. After venesection, a #12 gauge Robb-Steinberg needle is inserted into the antecubital or brachialis vein.

3. Circulation time is determined by rapid injection of 5 cc. of 20 per cent Decholin mixed in 50 cc. of normal saline solution.

4. An injection of 15 cc. of 50 per cent Hypaque is used as a loading dose for the kidneys.

5. Manually, 50 cc. of 90 per cent lukewarm Hypaque is injected (in less than 2 seconds).

6. With rapid exposure changer or manually changed cassettes, exposures are made one-half second before pre-determined circulation time and at circulation time; from four to six more tomograms are made at predetermined levels.

7. In a few selected cases in which unsatisfactory films are obtained, injection is repeated after the circulation time is rechecked.

In Step 5, the author occasionally added, as did Southwood and Marshall,[5] 5 cc. of 20 per cent Decholin to the Hypaque to better time exposures. The value of this procedure was outweighed by disadvantages of erroneous timing and occasionally by severe coughing of the patient during rapid exposures.

In Step 6, the technique varied at the two institutions where the author worked because of different x-ray equipment. At Hermann Hospital, the rapid Sanchez-Perez device was used and plain nephrograms, followed immediately (within 3-5 minutes) by tomograms on a standard tomogram machine. At M. D. Anderson Hospital, manually changed cassettes on the automatic tomogram machine were used.

Interpretation of the films is based on the poorly demarcated, increased vascularity with subsequent "puddling" or "pooling" of the radiopaque medium which nearly always is present in carcinoma, as contrasted with the clearly demarcated, smooth, spherical defect of radiolucency nearly always demonstrated with a cyst.

Results

The author's experience with renal tomography in 46 cases is summarized in Table 1. Only the more difficult cases are discussed. Four misdiagnoses were rendered. The Urology Department and the Radiology Department did not always agree on the same preoperative diagnosis, but for clarity only the x-ray preoperative diagnoses are used.

The cyst which was diagnosed as a benign tumor lay posteriorly on the surface of the kidney, and therefore was not as translucent as usual. The cyst interpreted as a cystic neoplasm was in the center of the kidney and had an irregular outline caused by excessive peripelvic fat and overlying renal parenchyma.

The carcinoma diagnosed as a cyst was a massive, abdomen-filling lesion in a patient who died of widespread pulmonary and subcutaneous metastases within four months with no surgical or autopsy proof; the tumor was apparently necrotic and avascular. No explanation is offered for the benign tumor interpreted as a cyst except for the rarity of the lesion and the relative avascularity of this large leiomyoma. In the two cases of diagnosis of renal tumor without surgical proof, one patient refused surgical treatment and the other, an elderly colored woman with a solitary kidney, also declined an operation.

The two papillary carcinomas were advanced lesions which involved large amounts of renal parenchyma; diagnosis was made by heavy reliance on available pyelograms, plus the nephrotomograms. Of the nine lesions diagnosed as cysts without surgical proof, the decision not to operate was made because of a clear-cut, smooth, spherical radiolucency in the kidney. Some of these cases had been followed with retrograde pyelograms for two to four years before tomograms were made. In others, there were coexisting malignant growths of a nature serious enough to preclude surgical exploration. In no case was a cyst aspirated.

Two of the unsatisfactory films were for patients who had been followed for polycystic disease of both kidneys, with no surgery. Repeated pyelograms have shown no changes. The other case showed motion on the films, and exploration revealed a benign cyst.

Case Reports

CASE 1.—N. M. (MDAH 31151), 46 year old white woman, reported May 15, 1959, with symptoms of moderate right costal vertebral angle tenderness; there was a history of gross painful hematuria approximately two weeks before admission. Intravenous pyelograms and retrograde pyelograms showed a large mass of the right upper pole which deformed the calyces. Nephrotomograms indicated cyst of the upper pole; however, calcification was noted. Exploratory operation revealed a large solid fibrous tumor. Right nephrectomy was done, and leiomyoma of the kidney was diagnosed on pathologic examination. The patient did well

TABLE 1.—*Accuracy of Renal Tomography in 46 Cases.*

Preoperative X-ray Diagnosis		Errors in Diagnosis and Unproved Diagnosis	
Normal	4	Cyst diagnosed as benign tumor	1
Solitary cyst	21	Cyst diagnosed as carcinoma (cystic neoplasm)	1
Renal carcinoma	11	Carcinoma diagnosed as cyst	1
Papillary carcinoma	2	Benign tumor diagnosed as cyst	1
Benign tumor	1	Renal tumor with no surgical proof	2
Miscellaneous*	4	Cyst with no surgical proof	9
Unsatisfactory visualization	3		

*Polycystic ectopic or other anomalous kidney—fetal lobulation—hemangioma.

postoperatively and was dismissed in the care of the referring physician.

CASE 2.—B. B. (MDAH 34460), 63 year old white woman, had a four months' history of general malaise and of vague pain in the left flank and groin. Microscopic hematuria had been present on two occasions before admission. Pyelograms showed a mass-filling defect of the upper pole on the left. Nephrotomograms showed "puddling" of the medium in a large mass in the upper pole. The operative specimen was a large friable hypernephroma, with invasion of the renal vein. The referring physician has followed the patient's progress since her discharge.

CASE 3.—W. C. (MDAH 5284), 56 year old white man, had spontaneously passed a right ureteral calculus in 1940. There was a history, also, of intermittent, gross, total, painless hematuria of six months' duration in 1948. The patient had been treated symptomatically elsewhere until May, 1950, when cystoscopy revealed a 3 to 4 cm. papillary tumor of the bladder. Cystotomy, electroresection, and fulguration was done. The lesion was a grade II, transitional cell carcinoma. Many recurrences appeared at about six-month intervals. For each, transurethral resection and fulguration was done until October, 1956, at which time the tumor had advanced to grade III and had invaded the bladder musculature. Supervoltage x-ray therapy to a given tumor dose of 6,000 r on the Cobalt 60 irradiator was given. In October, 1957, postirradiated recurrence was seen; therefore, total cystectomy, prostatectomy, and bilateral ureteroileal anastomosis was done. Preirradiation and preoperative intravenous pyelogram was normal.

In February, 1960, after a period in which he had done well, the patient again had hematuria, with passage of a calculus from the ileostomy pouch. Intravenous pyelogram showed a suspicious lesion in the upper portion of the right kidney. Nephrotomograms confirmed the presence of an irregularly shaped, irregularly opacified mass in the mid-portion of the kidney. At operation, a necrotic transitional cell carcinoma that involved much of the renal parenchyma was excised. The patient has done well since.

CASE 4.—C. C. (HH 59-14462), 70 year old white woman, had a long history of symptoms referable to the lower part of the urinary tract, including dysuria, pyuria, and nocturia. Diagnostic work-up, including retrograde pyelograms, showed a mass-filling defect in the upper pole of the right kidney. Nephrotomograms showed a smooth, radiolucent, peripelvic lesion, probably cystic. At operation, a simple peripelvic cyst was found and was de-roofed.

Discussion

An attempt has been made, through the review of a small number of cases, to show that nephrotomograms are often of definite aid in diagnosing, without surgery, the general difference between the relative opacification of a cyst and a carcinoma of the kidney. These films are especially useful in patients in whom age, poor operative risk status, or co-existing disease make surgical exploration inadvisable.

This study also indicates that relatively little practice and reasonably expensive equipment are needed to get good results. This concept is borne out by the big difference in exposure equipment at the two hospitals with almost identical results.

Dr. T. C. Hawkins was affiliated with Hermann Hospital and M. D. Anderson Hospital in Houston at the time he presented this paper. He is now specializing in the practice of urology at Kerrville. He gave this paper before the Section on Radiology in Galveston on April 25, 1961.

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♦ Dr. Hawkins, 102 Peterson Hospital Building, Kerrville.

ABSTRACT OF DISCUSSION

DR. JACK REYNOLDS, Dallas: The objective of a radiographic diagnostic procedure is to produce on film the image of an organ that faithfully depicts its gross structure. Such an image, interpreted by an experienced viewer, will result in diagnostic accuracy of high degree limited only (human error excluded) by the fact that in certain organs, nearly identical morphologic changes may result from different diseases. The measure, then, of the accuracy of such a diagnostic procedure is the accuracy which would be achieved by the pathologist before he has access to histologic analysis.

Nephrotomography approaches this degree of refinement. Most so-called "routine" studies, such as the intravenous pyelogram, are successful in that they demonstrate a diseased state, that is, a displaced calyx or a nonfunctioning kidney. Nevertheless, the "special" procedure should be designed to identify the disease process with an accuracy measured not in the absolute, but within the realistic limits assigned. In Dr. Hawkins' experience, this objective is achieved to a degree greater than his reported results (Table 1) might indicate. Listed under "errors in diagnosis" are four of the 46 patients. If a precise, histologic diagnosis is the criterion, this is a true assessment of diagnostic error. Realistically, however, the goal was to identify the nature of a lesion in terms of its implication to the patient. A cyst may be called a benign tumor or a benign tumor a cyst without introducing error into the statistics. Accuracy in excess of 95 per cent is achieved. No diagnostic procedure short of histologic examination of permanent sections is more reliable; this justifies the stated objective, "to diagnose, without surgery." In some instances, its use might be extended to patients other than those classified as poor operative risks.

Successful results can be achieved without the complexities which too often accompany "special" procedures. Some such examinations produce reliable data only after long practice and at great expense and patient morbidity; thus,

they have sharply limited practical value. Therefore, in a consideration of possible sources of error in nephrotomography in the technique described, any suggested modifications which apparently improve accuracy must be weighed against their tendency to complicate unduly and thus to degrade the procedure.

There seem to be two general sources of error. One is related to the inherent structure of the lesion. If no ameliorating factors are introduced by routine ancillary diagnostic procedures (such as characteristic calcification within the lesion), it may be virtually impossible in some cases to differentiate a simple cyst from a renal cancer with massive necrosis at its center. Similarly, inability to demonstrate a lesion smaller than a centimeter precludes its identification. Elimination of errors in this category are nearly impossible. Perhaps some slight refinements may come with discovery of new and subtle signs.

Others who, like Dr. Hawkins, have had experience with this technique believe that the greatest source of error lies in the attempt to interpret films which are not of good quality. If diagnostic quality is not achieved and the cause is known and correctable, repeated injection and examination should be done without hesitation Success often depends on rapid delivery of the contrast material and proper timing of its arrival in the renal area. Use of mechanical, rapid injection apparatus needlessly complicates the procedure. Ease and rapidity might be implemented, however, by use of the pressure lock syringe made with holes for fingers and thumb. Manipulation is thus easier, allowing rapid delivery of the bolus. Similarly, a less concentrated solution than 90 per cent Hypaque might give satisfactory contrast and, owing to its lowered viscosity, might facilitate rapidity of injection, thus offering the better result.

Timing of the circulation by the Decholin method is subject to error. Today, many institutions have an isotope laboratory. If, without appreciable added expense, the circulation time to the renal area could be measured by means of a small dose of a gamma emitter, a scintillation probe, and an appropriate recording device, the timing of exposure, and hence the quality of the angiogram, might be improved. In the present age of automation, a logical refinement of this technique is apparent: an opaque medium which incorporates the tracer of I^{131} and a probe which, when energized, automatically initiates film exposure.

Other modifications such as the use of book cassettes and, when indicated, the supplementary use of laminography in the lateral projection are embellishments which add little to diagnostic accuracy.

For the Record

Americans are a prudent people. Look at the evidence: In a recent poll, 63 per cent of those questioned said the President and Congress should do something about holding down prices and preventing inflation.

Americans are a good-hearted people. Look at the evidence: In the same poll, 52 per cent of those who answered said they thought the powers that be ought to get busy and provide more medical care for the aged.

Americans are a generous people who like to see the other fellow get a break. Look at the evidence: In the poll, 48 per cent said Congress and the Chief Executive should boost the minimum wage to $1.25 per hour.

Americans are people who also like to see themselves get a break. Look at the evidence: The poll turned up 46 per cent who thought the government ought to "reduce taxes for people like myself."

A higher minimum-wage—but no price rise and no inflation. More medical care for the aged, more federal aid to education (said 40 per cent), more housing and slum clearance (38 per cent), more spending on national defense (31 per cent) and to cut unemployment (28 per cent)—but still "balance the budget by cutting government spending" (37 per cent) and, above all, "reduce taxes for people like myself."

Yep, Americans are prudent, good-hearted, and generous. But Americans, judging by that poll, also are a people who need a fast lesson or two in arithmetic and the relationship between cause and effect.

—*Star-Journal*, Warrensburg, Mo.

NEWS

Doctors, Students Pleased By Medical Careers Day

Walk-weary, but still popping questions and storing up information, 155 high school students of Austin completed a day's tour of medical and health facilities at the First Annual Medical Careers Day sponsored by the Travis County Medical Society November 4.

During the tour students got a more definite idea of what medical or health field they may want to pursue in the future. They were guests of the society, in cooperation with the State Department of Health, Brackenridge Hospital, the City-County Health Department, and the Austin Independent Schools.

Half the students toured facilities at Brackenridge and the City-County Health Unit, while the other half toured the State Health Department. After the morning session the two groups took a luncheon break and changed places.

Ten groups of about 15 students each were conducted on the all day tour.

During registration, exhibits planned by Dr. T. R. McElhenney were viewed by students at both tour locations. Each exhibit represented a field of medicine, public health or a paramedical field. Perhaps the most popular of these were the iron lung, a chest respirator, and an electrocardiogram set-up. The students were quick to volunteer for all demonstrations using human volunteers.

Dr. A. Q. DaSilva explains the Coulter blood cell counting chamber to Martha Messer, Brackenridge School of Nursing, and Robert Olguin and Merry Mayne, Austin High School.

After Drs. R. G. Carter and Ruth M. Bain at the City-County Health Unit and M. D. McCauley and J. E. Peavy at the State Health Department had welcomed the students and explained the days' activities, the students set out to see medicine in operation.

Physicians representing several medical specialties hosted the students and their physician guides through Brackenridge Hospital under the overall supervision of Dr. George E. Clark, Jr. Dr. G. C. Thorne was program chairman.

John S. Wiseman, supervisor of the Entomology Division, State Department of Health, discusses the work of his division and that of the Parasitology Division, where the picture was taken.

Dr. Werner E. Kuenast demonstrates diagnostic x-ray procedures during the tour of Brackenridge Hospital.

In the hospital, physicians explained important laboratory diagnostic techniques; diagnostic x-rays and x-ray therapy methods; eye, ear, nose, and throat equipment; anesthetic and surgical equipment, and orthopedic techniques.

At the State Department of Health, the students saw exhibits depicting services such as poison control, cancer studies, and radiation studies. Laboratory tours included the biologics, serology, chemistry, virology, parasitology, and entomology departments.

The physicians were impressed by the countless intelligent questions put to them by students, and by their orderly conduct. At the day's end, one weary student said she had had a wonderful time, but that toward the end of the tour "everyone's favorite exhibit was where we got to sit down for a few minutes."

The Woman's Auxiliary to the Travis County Medical Society directed registration.

Dr. James M. Graham outlines steps in the production of some immunizing biologicals and vaccines as carried out in the Biologics Production Division of the State Department of Health.

Medicine Is Not All Science

In our haste to dissolve disease by science, one of the greatest possibilities for serious error is to overlook the fact that medicine is not all science. At times it appears that the emotions which are much older and in some ways perhaps wiser than newer knowledge are more powerful than reason. Men and women are the most complex and sensitive of structures, with emotions, appetites, ambitions, fears, and hopes, loves, hates, and passions, all of which disturb the body mightily. If anxiety can be called a disease, it is the most common of all. The great new advances in preventive psychiatry are not yet within the grasp of modern science. The most sensitive laboratories and scientific methods cannot measure these factors. They must be evaluated by an understanding human being.

—E. Perry McCullagh, M.D., in *GP*.

Modifying Chlorothiazide Structure Yields More Active Diuretics

New diuretics (Eli Lilly Research Laboratories), reported in a recent issue of the *Journal of Organic Chemistry,* prompts this brief review of interesting structure-activity relationships among several "carbonic anhydrase inhibitors" that have been studied as diuretics.

One readily recalls the development of chlorothiazide (for example, Diuril; Merck, Sharp and Dohme), which chemically is 6-chloro-7-sulfamoyl-1, 2, 4-benzothiadiazine-1, 1-dioxide. This compound has had extensive clinical acceptance. It is a carbonic anhydrase inhibitor, and also exerts saluretic action. Dihydrochlorothiazide (for example, Dihydrodiuril; Merck, Sharp and Dohme) is even more effective because of its higher degree of activity. Consequently, it may be deduced that several other active compounds can be derived by modifying the structure of the parent compound, chlorothiazide. Such modifications have been saturation of the 3, 4-double bond, that gave rise to the more active hydrochlorothiazide, and introduction of substituents in the 3-position of the hetero-cyclic nucleus. Dr. Whitehead and his coworkers at Lilly Laboratories have studied this second structural modification and its effects on diuretic activity. They have synthesized a series of 6-chloro-3-substituted-7-sulfamoyl-1, 2, 4-benzothiadiazine-1, 1-dioxides. Many of these new compounds have shown a higher degree of activity than the parent compound. The synthesis and properties of 30 similarly substituted (at the 3-position), 3, 4-dihydro analogs have also been reported. Correlations between their structure and activity reveal that also in the case of the 3-substituted derivatives, the 3, 4-dihydro analogs are more active than the corresponding 3, 4-unsaturated derivatives. Consequently, in the near future one of these may be introduced as a pharmaceutical product.

Thiabendazole (Merck, Sharp and Dohme) is an antihelminthic recently reported in the *Journal of the American Chemical Society* by a group of scientists from Merck, Sharp and Dohme Research Laboratories and the Merck Institute for Therapeutic Research.

This new agent represents a new class of antihelminthics possessing a broad spectrum of activity. Thiabendazole, 2-(4′-thiazolyl)-benzimidazole, is reported to be one of the most outstanding in activity among several hundred analogs studied in detail.

Thiazendazole possesses antihelminthic activity for gastrointestinal parasites in sheep, goats, cattle, horses, swine, dogs, and poultry. Since this compound has shown activity against hookworm, roundworm, and whipworm infections in dogs, its effects on similar parasites in man are under investigation.

Clinical studies may eventuate in development of a pharmaceutical product from this experimental new antihelminthic. Further developments will be reviewed as they come to the authors' attention.

Capromycin (Eli Lilly and Company), a new peptide antibiotic, has been discovered by a Lilly research group that reported its isolation and partial characterization at the recent meeting (September, 1961) of the American Chemical Society. This new antibiotic is reported to be as effective as streptomycin and p-aminosalicylic acid against experimentally produced tuberculosis in mice.

The antibiotic has been assigned a tentative empirical formula $C_{25\text{-}27}H_{53\text{-}57}N_{13\text{-}14}O_{9\text{-}10}$, and the presence of four ionizable groups have been detected.

Physicians have noted that the bacteria that cause tuberculosis gradually develop resistance to streptomycin when they are grown in a medium enriched with streptomycin. According to the Lilly scientists, however, the organisms remain sensitive to Capromycin. Nevertheless, in a Capromycin-enriched medium, the organisms may also develop resistance to the new antibiotic.

Chemically, the peptide, Capromycin, upon hydrolysis yields five amino acids, two of which have been identified as alanine and serine. Two others are basic: β-lyzine and α, β-diaminopropionic acid. The fifth amino acid is new: α-(2-iminohexahydro-4-pyrimidyl) glycine. Research is in progress to determine the sequence of Capromycin and complete elucidation of its structure.

—JAIME N. DELGADO, Ph.D., and
LEE F. WORRELL, Ph.D.,
College of Pharmacy,
University of Texas, Austin.

[Correction. The authors wish to bring the following correction to the attention of readers. In the June, 1961, issue of the *Texas State Journal of Medicine,* reference was made to Merck, Sharp and Dohme's *DECADRON* during a review (Drug Notes) of adrenocortico-metric steroids. Erroneously, the caption read "Decadron, Lederle" instead of "Decadron; Merck, Sharp and Dohme".]

1962 Scientific Exhibitors Asked to Apply Early

One of the popular and educational features of the 1962 Texas Medical Association Annual Session scheduled May 13-15 in Austin will be the scientific exhibits presented by physicians themselves.

The chairman of the Committee on Scientific Exhibits, Dr. Jasper H. Arnold of Houston, has called on all interested physicians to apply for exhibit space as soon as possible. Space for approximately 80 to 90 booths is available in the Austin Municipal Auditorium where all exhibits will be held. Booth numbers and locations will be assigned and confirmed prior to Annual Session.

Applications should be addressed to Mr. Dale Werner, Texas Medical Association, 1801 N. Lamar Boulevard, Austin.

The Committee on Scientific Exhibits stresses that exhibits be simple and inexpensive. It is the committee's belief that the exhibits serve two general purposes: (1) they provide an opportunity for display of examples of scientific work being done by the profession and (2) they offer the membership a quick review of advances in medicine and they clarify and emphasize important issues and principles of value in medicine.

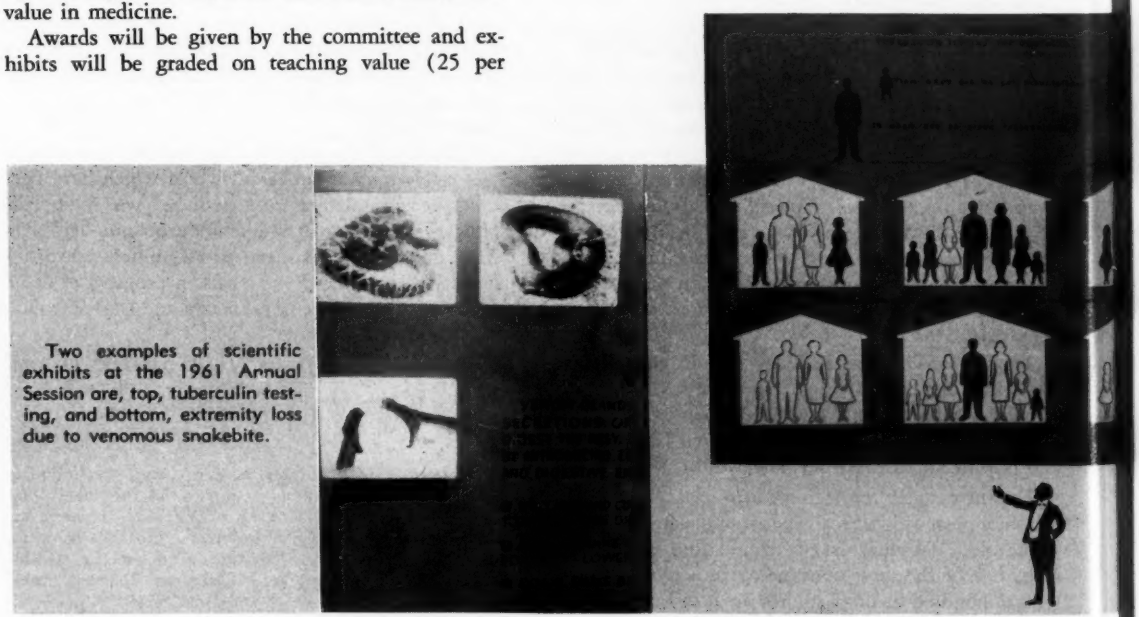
Awards will be given by the committee and exhibits will be graded on teaching value (25 per cent), practical value (25 per cent), scientific level (20 per cent), personal presentation (10 per cent), eye appeal (10 per cent), and miscellaneous points such as originality and newness (10 per cent).

To be conducted also is a popularity poll. Association members will be allowed to indicate by ballot which exhibit they believe to be most outstanding.

Members of the Committee on Scientific Exhibits will be present when exhibitors set up their booths.

Austin hotels and motels, as noted in the October *Journal,* are now honoring reservations for the period of Annual Session. Requests for accommodations should be sent directly to the hotel or motel of choice. Blocks of rooms at the headquarters hotels, the Driskill and the Stephen F. Austin, will be held until Feb. 1 for Association guest speakers and officials and after that rooms will be available at these hotels on a first come, first served basis.

A listing of other hotels and motels may be found in the October *Journal* on page 879.



Two examples of scientific exhibits at the 1961 Annual Session are, top, tuberculin testing, and bottom, extremity loss due to venomous snakebite.

DR. PHILIP M. PRIETO, El Paso, has been appointed to the board of directors of the El Paso County United Fund.

Dr. George W. Iwen has been elected chairman of the El Paso Heart Council, an affiliate of the Texas and American Heart Associations. *Drs. W. C. Autry, L. N. Nickey, and William Wade,* all of El Paso, were elected to the council's board of directors.

Dr. N. L. Barker of Paris has been elected president of the Lamar County Chamber of Commerce.

Personals

Dr. Joanne Kenner, Mineral Wells, has been named a diplomate of the American Society of Abdominal Surgeons.

Dr. Herbert C. Allen, Houston; *Dr. Lloyd R. Hershberger,* San Angelo; *Dr. J. R. Maxfield, Jr.,* Dallas; and *Dr. Ben Dubilier,* Austin, have been named by Governor Price Daniel as members of the Radiation Advisory Board.

Dr. Thelma E. Frank, Corpus Christi, has been named the outstanding medical woman of Southwest Texas by the American Medical Women's Association.

Dr. T. H. Holmes, Jr., is a new fellow of the American Academy of Pediatrics. Dr. Holmes practices in Lubbock.

Dr. Edgar J. Poth, Galveston, director of the surgical research laboratory, University of Texas Medical Branch, has received a grant of $127,000 from the National Institute of Health. The grant will finance a study, begun 15 years ago, on the influence of pancreatic secretions in the formation of peptic ulcers.

Dr. Walter B. Mantooth, Lubbock, has been promoted to the rank of colonel; he is serving as commanding officer of the U. S. Army's 117th Medical Battalion of the 49th Armored Division.

Dr. Robert B. Morrison, Austin, has resumed his full time duties as medical director of the Austin-Travis County Tuberculosis Sanitorium.

Recently named diplomates of the American Board of Pathology were *Dr. Raymond H. Rigdon* and *Dr. Sol Teitelbaum,* both of the University of Texas Medical Branch at Galveston.

Dr. Mary Ellen Haggard of Galveston, associate professor of pediatrics at the University of Texas Medical Branch, has been appointed assistant in pediatrics in the Children's Hospital in Boston, an affiliate of Harvard Medical School.

Dr. N. L. Barker of Paris has been elected president of the Lamar County Chamber of Commerce for 1962.

Dr. W. T. Sadler of Merkel has received the traditional "gold headed cane," the first to be awarded by the Taylor-Jones County Medical Society, for outstanding service as a physician and as a citizen of his community.

Dr. Patrick Romanell of Galveston, professor of medical philosophy at the University of Texas Medical Branch, recently completed a 10-week cultural mission in eight Latin American countries as a specialist in medical philosophy and ethics. He visited Costa Rica, Bolivia, Paraguay, Panama, Guatemala, El Salvador, Nicaragua, and Venezuela on the U. S. State Department mission.

Dr. R. B. Caraway of Wharton has been elected to the state board of directors of the Texas Division, American Cancer Society.

Dr. W. B. Lasater of Mineral Wells recently was honored by the staff of Nazareth Hospital and presented with a plaque of appreciation. Dr. Lasater was on the first medical staff when the hospital opened in 1931.

Dr. R. O. Clements of Liberty has been appointed Liberty County chairman for the Republican Party of Texas.

Dr. and Mrs. H. Edward Downs of El Paso are parents of a son, born October 5.

Dr. Saul B. Appel of El Paso recently was elected vice president of the Texas Heart Association for the third consecutive year.

Dr. Aurora Rodriguez recently was named "Woman of the Week" by the *El Paso Herald-Post.*

Dr. Rita Don, clinical pathologist and allergist in El Paso, was chairman for the sixth annual conference of District IX, Altrusa International. The conference was held October 19-22 in El Paso.

Dr. Lewis A. Leavitt of Houston, professor and chairman of the department of physical medicine and rehabilitation, Baylor University College of Medicine, and *Dr. Jack R. Ewalt,* former professor of psychiatry at the University of Texas Medical Branch in Galveston, have been appointed to the special medical advisory group of the Veterans Administration. Dr. Ewalt, now of Boston, is with the Massachusetts Mental Health Center and professor of psychiatry at Harvard University Medical School.

Drs. William Fields and William Lucas, both of Houston, will attend conferences in neuropathology and neurology in Munich, Germany, and Rome. The physicians will speak in London and at the University of Zurich in Switzerland.

Dr. Otto Lippmann of Austin presented a paper on "The Ophthalmologist and the School Health Service" at a recent ophthalmologists' conference in New York City.

Fractures, Delivery Highlighted At AMA Scientific Exhibits

The 15th annual clinical meeting of the American Medical Association opens November 26 in Denver. Sessions will continue through November 30.

The House of Delegates will convene at 10 a.m. November 27. The scientific program also will open November 27 at 9:30 a.m. and will close November 30 at noon.

The scientific exhibits will open at noon November 26 and will close at noon on November 30. The industrial exhibits will have the same time schedule as the scientific exhibits.

Two special features will be presented at the scientific exhibits, including a special exhibit on fractures and manikin demonstrations on problems of delivery. These will be in addition to 115 individual scientific exhibits.

Continuous demonstrations will be conducted daily from 10 a.m. to noon and from 2 to 4 p.m. on fractures of the ankle, the hand, the tibia, and the fibula. The demonstrations will deal with basic principles for physicians in general practice. Members of the committee in charge of the exhibit will be present to discuss individual problems with visiting physicians. A pamphlet, describing essential features of the exhibit, will be distributed.

Manikin demonstrations on problems of delivery will be conducted twice daily by a group of Denver obstetricians. A question and answer period will follow. Demonstrations at noon daily will include vertex delivery, pudendal block, and the use of obstetrical forceps. The demonstrations at 4:30 p.m. daily will include breech, brow, shoulder, and compound presentation with internal and external version.

More than 115 firms will be represented in the industrial exhibits. Qualified personnel will be present to answer questions on new drugs or new equipment.

The scientific program will include sessions and papers on genes and chromosomes, electronics and computers in medicine, space medicine, medical aspects of American habits, new developments in virology, treatment of radiation injuries, new findings in chemotherapy for cancer, and latest data in the field of antibodies and antigens.

January, 1962, Conference Features Two Symposiums

The scope of Texas Medical Association's annual January meeting will be broadened in 1962 and will be entitled, "1962 Texas Medical Association Conference". It is scheduled for Jan. 20 in Austin.

Two symposiums will be featured, "Symposium for County Medical Society Officials" and "Symposium on Legislation". The first conference will be held from 8:30 a.m. until 10 a.m. and will be designed to inform county society representatives of their duties. The second symposium will be held after lunch and will include a panel discussion. Topics to be covered are the vendor's medical care program in Texas, the danger of socialism through the Social Security System, the Veterans Administration medical care program, and practical pointers on how to organize a legislative program and how to get the job done in legislation.

The main program of the conference will begin at 10 a.m., immediately following the county society symposium. Five guest speakers will attend the conference.

Two guest speakers who are committed to attend are William DeMougeot, Ph.D., director of debate and forensics at North Texas State University at Denton, and Dr. Austin Smith, president of the Pharmaceutical Association, Washington, D. C. Three more guest speakers are expected to confirm later.

An Orientation Program will be held in conjunction with the Conference. In addition, the Medical Protective Company of Fort Wayne, Ind., will host a hospitality hour Saturday evening in the Driskill Hotel.

MD Magazine Features Dr. Renger

"Caduceus on cowboy boots" is the way Dr. Harvey Renger of Hallettsville blends two fulltime lives.

Dr. Renger, 96th president of the Texas Medical Association, is featured as a successful physician-rancher in a 12-picture story in a recent issue of *MD* magazine. The physician and surgeon is shown in various activities about his 2,800-acre ranch, at home with his wife and two sons, and in practice at the Renger Clinic and Hospital.

Insurance Bonus and Dividend Offered

The Lumbermens Mutual Casualty Co. will continue the 20 per cent bonus payments to holders of their five-year sickness policy, and will, in addition, pay a dividend of $155,381 to holders of both the five-year and ten-year sickness policies, effective Nov. 1, 1961.

The insurance company's offer amounts to a return of approximately 31.4 per cent of the premium to each member. Loss experience on the disability policy has remained favorable, according to Dr. Alford R. Hazzard of Austin, chairman of the Committee on Association Insurance Programs. He reported this fact to the Council on Medical Service and Insurance, which reported, in turn, to the Executive Board this past Oct. 1 in Austin.

The number of physicians now enrolled in the program is near 3,500. The administrator, Charles O. Finley and Co. of Austin, has reported a desired permanence and stability due to the large number of younger doctors applying for coverage.

The TMA's first "true group" disability insurance program went into effect on Nov. 1, 1955. At that time, the Lumbermens company agreed to return a portion of any profits to the policyholders after the plan was subject to a stabilization period of five to seven years.

The first benefits accrued on Nov. 1, 1959, four years after the plan was inaugurated. The initial benefit was a 15 per cent bonus paid on claims under the three-year sickness plan. In 1960, the three-year sickness plan was increased to a five-year sickness plan with no increase in premium and a 20 per cent bonus was paid on claims under the five-year plan.

This is the only group disability insurance program sponsored by TMA. All phases of the plan are closely observed by the Committee on Association Insurance Programs during meetings held three times a year with the administrator.

In addition to Dr. Hazzard, the chairman, other members of the Committee on Association Insurance Programs are Dr. A. L. Hewitt of Lubbock, Dr. C. C. Shotts of San Antonio, Dr. Mylie Durham, Jr., of Houston, and Dr. G. J. Pruitt of Lufkin.

Tuberculosis Drug Report

Use of isoniazid, the tuberculosis drug, has been found 80 per cent effective in preventing the disease among more than 12,000 household contacts of newly discovered cases of tuberculosis, the U. S. Public Health Service reported in a recent issue of the *Journal of the American Medical Association.*

The findings are based on preliminary results of one of three field trials begun four years ago and involving 54,000 people in special risk groups. During the year, after the source case was discovered, the tuberculosis rate for half of the household contacts, who took daily doses of isoniazid, was 0.2 per 1,000 in contrast to a rate of 6 per 1,000 among the half who were given placebos.

"We now have evidence that the household contacts of a newly discovered case of tuberculosis can be protected at a time when their risk is highest," Dr. Luther Terry, surgeon-general of the U. S. Public Health Service, said. He added, however, that the test results gave no indication the protection continues after the drug is stopped. Observation of people in the study will be continued for several more years to determine whether the protection continues.

Medicine-Pharmacy Code Proposed

A code of interprofessional relations, a new guide of standards of conduct for physicians and pharmacists in their inter-relationships, was promulgated by committees from the Boards of Councilors of the Texas Medical Association and the Texas Pharmaceutical Association at a joint meeting September 10 in Austin.

Minor amendments to the code will be prepared before its submission to the full Board of Councilors of TMA for review and consideration. A joint project of TMA and TPA, the code of interprofessional relations is designed to promote and protect the public health and welfare, improve the working relationships of medicine and pharmacy, and facilitate the care of the patient.

Hemophilia Foundation Program Extended

The National Hemophilia Foundation program has been extended to include victims of a number of infrequent blood diseases. All persons afflicted with inherited deficiencies of the coagulation factor, including patients with pseudohemophilia, parahemophilia, and congenital fibrinogen deficiency will be covered in the foundation program. Persons with acquired blood defects such as leukemia or thrombocytopenia are not included.

Further information may be obtained by writing the foundation, 175 Fifth Avenue, New York 10.

Radioactive Fallout Bears Watching

At present Texas residents need not fear dangerous amounts of radioactive fallout resulting from recent Soviet nuclear tests, reports the Texas State Department of Health. Because of the increases, however, continuous intensive surveillance by federal, state, and local governments is necessary.

Radiation engineers speculate that observable increases in fallout may be brought in with north winds as soon as late December. Further amounts may be expected with the spring rains.

Air sampling stations, one of which is located on top of one of the Department's Austin buildings, indicate sporadic increases in fallout levels but currently these levels are not sufficiently high to cause detectable damage to animal or plant life.

In conjunction with the United States Public Health Service, the Department states that the increased "levels do not warrant undue public concern, nor initiation of public health action designed to limit intake of radioactive materials by individuals or large population groups in any part of the country." If large amounts are detected in the future, protective measures may be considered by the state and federal governments.

Public health officials report that "very little is known about the effects on animals or humans of very low but prolonged exposures, such as from natural background radiation, radioactive industrial wastes, or fallout from distant nuclear tests." The consensus of scientists currently is embodied in the "non-threshold" concept which states that "the most prudent course is to assume there is no level of radiation exposure below which one can be absolutely certain that harmful effects may not occur to at least a few individuals when sufficiently large numbers of people are involved." The United States government and many national and international scientific organizations have adopted this basic assumption for planning purposes.

It is assumed from this concept that the "extra radiation caused by the Soviet tests will add to the risk of genetic effects in succeeding generations, and possibly to the risk of health damage to some people in the United States. It is not possible to determine how extensive these ill effects will be—nor how many people will be affected. At present radiation levels, and even at somewhat higher levels, the additional risk is slight and very few people will be affected. Nevertheless, if fallout increased substantially, or remained high for a long time, it would become far more important as a potential health hazard in this country and throughout the world."

In Texas, the State Department of Health will continue to observe fallout levels at its Austin station and at an air sampling station the Department supervises in connection with the local health department at El Paso. Other stations in Texas are maintained by the federal government and the armed services. Each day, data are reported from all points in the United States to the United States Public Health Service, which issues a monthly compilation of reports.

For further information, physicians may write the Division of Occupational Health and Radiation Control, Texas State Department of Health, 1100 West 49th St., Austin 5.

5 Texans Among Border Health Association Officers

Five members of the Texas Medical Association are among the new officers of the United States-Mexico Border Public Health Association for 1961-1962.

Dr. J. V. Irons of Austin, director of laboratories for the Texas State Department of Health, was elected a vice-president. Dr. James E. Peavy of Austin, commissioner of the State of Texas Department of Health, was elected to the board of trustees. Dr. David M. Cowgill of Lubbock, director of the Lubbock City-County Health Department, was named co-chairman of the external relations committee.

Dr. Van C. Tipton of Austin, director of the communicable disease division of the Texas Department of Health, was elected co-chairman of the venereal disease section. Dr. Jack C. Postlewhite of El Paso was elected co-chairman of the tuberculosis section.

Six Specialty Societies With Medico, Inc.

Six national medical and surgical specialty societies officially have become affiliated with MEDICO, Inc., Dr. Peter D. Comanduras, MEDICO's secretary-general, has announced.

The affiliating groups are the American College of Physicians, American College of Surgeons, American Psychiatric Association, American College of Radiology, American Academy of Physical Medicine and Rehabilitation, and the American Academy of Pediatrics.

MEDICO, Inc., the worldwide medical program established in 1958, presently has 17 projects being operated by teams of American physicians and nurses in 12 countries of Africa, Asia, Latin America, and the Near East.

Officers, Councils, & Committees Texas Medical Association 1961-1962

Officers

Harvey Renger, Hallettsville, President.
George W. Waldron, Houston, President-Elect.
R. Mayo Tenery, Waxahachie, Vice President.
J. M. Travis, Jacksonville, Secretary.
C. Lincoln Williston, Austin, Executive Secretary.
T. H. Thomason, Fort Worth, Treasurer.
James D. Murphy, Fort Worth, Speaker of the House of Delegates.
Charles Max Cole, Dallas, Vice Speaker of the House of Delegates.

Board of Trustees

R. W. Kimbro, Cleburne, Chairman (1962).
J. B. Copeland, San Antonio, Vice Chairman (1966).
C. P. Hardwicke, Austin, Secretary (1966).
Elliott Mendenhall, Dallas (1965).
Troy A. Shafer, Harlingen (1964).
C. E. Willingham, Tyler (1964).
Byron P. York, Houston (1963).

Board of Councilors

First District: C. E. Oswalt, Jr., Fort Stockton, Chairman (1964); Russell Holt, El Paso, Vice Councilor.
Second District: Henrie E. Mast, Midland (1963); A. H. Daniell, Brownfield, Vice Councilor.
Third District: William H. Gordon, Lubbock (1962); Julian M. Key, Pampa, Vice Councilor.
Fourth District: S. Braswell Locker, Brownwood (1964); Vacancy—Vice Councilor.
Fifth District: Walter Walthall, San Antonio, Vice Chairman (1962); George H. Herrmann, Del Rio, Vice Councilor.
Sixth District: Stanley W. Bohmfalk, Weslaco (1962); Harold E. Griffin, Corpus Christi, Vice Councilor.
Seventh District: David Wade, Austin (1963); Ray L. Shepperd, Burnet, Vice Councilor.
Eighth District: Carlos E. Fuste, Jr., Alvin, Secretary (1963); George Glover, Victoria, Vice Councilor.
Ninth District: James H. Sammons, Highlands (1963); Haden E. McKay, Humble, Vice Councilor.
Tenth District: Stephen B. Tucker, Nacogdoches (1964); Vacancy—Vice Councilor.
Eleventh District: R. H. Bell, Palestine (1964); William C. Smith, Carthage, Vice Councilor.
Twelfth District: Tom M. Oliver, Waco (1962); Dick Cason, Hillsboro, Vice Councilor.
Thirteenth District: Travis Smith, Abilene (1964); Emory Davenport, Fort Worth, Vice Councilor.
Fourteenth District: B. E. Park, Dallas (1964); Vacancy—Vice Councilor.
Fifteenth District: James E. Ball, Mount Pleasant (1962); Vacancy—Vice Councilor.

Delegates to the American Medical Association and Alternates

J. B. Copeland, San Antonio, Chairman (1963).
Alternate: George Turner, El Paso (1963).
T. C. Terrell, Fort Worth (1963).
Alternate: Denton Kerr, Houston (1963).
M. O. Rouse, Dallas (1963).
Alternate: R. D. Moreton, Fort Worth (1963).
J. C. Terrell, Stephenville (1963).
Alternate: J. L. Cochran, San Antonio (1963).
Troy A. Shafer, Harlingen (1962).
Alternate: John L. Otto, Galveston (1962).
John K. Glen, Houston (1962).
Alternate: Robert W. Kimbro, Cleburne (1962).
G. W. Cleveland, Austin (1962).
Alternate: Ridings E. Lee, Dallas (1962).
James H. Wooten, Columbus (1962).
Alternate: E. P. Hall, Jr., Fort Worth (1962).

Executive Board

Ex Officio: President, Vice President, President-Elect, Secretary, Treasurer, Speaker of the House of Delegates, Vice Speaker of the House of Delegates, Trustees, Councilors, Texas delegates and alternates to the American Medical Association, Council on Medical Jurisprudence, and chairmen of councils.

Councils

(The President and Executive Secretary are ex officio members of all councils.)

Council on Annual Session
Herman C. Sehested, Fort Worth, Chairman (1964)[1].
B. H. Williams, Temple (1964).
Dennis M. Voulgaris, Wharton (1963).
Max E. Johnson, San Antonio (1962)[2].
Mavis P. Kelsey, Houston (1962).

Council on Constitution and By-Laws
John F. Thomas, Austin, Chairman (1962).
J. T. Billups, Houston (1964).
George M. Jones, Dallas (1964).
M. D. Thomas, El Paso (1963).
William R. Klingensmith, Jr., Amarillo (1962).

[1]Appointed chairman April 26, 1961.
[2]Appointed April 26, 1961, to fill the unexpired term of Dr. L. Bonham Jones, San Antonio, who resigned April 25, 1961.

Council on Medical Education and Hospitals
John L. Matthews, San Antonio, Chairman (1962).
James A. Greene, Houston (1964).
A. J. Gill, Dallas (1964).
M. H. Crabb, Fort Worth (1963).
Kenneth M. Earle, Galveston (1963).
John W. Lanius, Dallas (1962).
G. V. Brindley, Jr., Temple (1962).

Council on Medical Jurisprudence
Robert D. Moreton, Fort Worth, Chairman (1962).
Floyd A. Norman, Dallas (1964).
Haden E. McKay, Humble (1964).
N. L. Barker, Paris (1963).
John M. Smith, Jr., San Antonio (1962).

Council on Medical Service and Insurance
Charles D. Bussey, Dallas, Chairman (1962).
Gail Medford, Jr., Lufkin (1964).
George B. Barnes, Corpus Christi (1964).
C. F. Jorns, Houston (1963).
J. G. Rodarte, Temple (1963).
Sam N. Key, Jr., Austin (1962).
A. G. Barsh, Lubbock (1962).

Council on Public Relations and Public Service
Joe R. Donaldson, Pampa, Chairman (1962).
Courtney M. Townsend, Paris (1964).
Thomas Royce, Houston (1964).
Van D. Goodall, Clifton (1963).
James Hallmark, Fort Worth (1963).
Glenn D. Carlson, Dallas (1962).
Foy H. Moody, Corpus Christi (1962).

Council on Scientific Advancement
J. E. Miller, Dallas, Chairman (1962).
Paul Gray, Corpus Christi (1964).
P. C. Talkington, Dallas (1964).
George E. Clark, Jr., Austin (1963).
Stewart A. Fish, Dallas (1963).
Herbert C. Allen, Jr., Houston (1962).
John W. Middleton, Galveston (1962).

Committees

The committees serving under the various Boards and Councils of the Texas Medical Association are as follows:

Board of Councilors

Committee on Contract Medicine (standing)
Vacancy (1962)[3].
E. Peter Garber, Galveston (1964).
R. B. Johns, Abilene (1964).
Vacancy (1964).
H. W. Kilpatrick, III, Baytown (1963).
Homer V. Hedges, Hico (1963).
Vacancy (1963)[4].
Jack Lee, San Antonio (1962).
William M. Ashe, Dallas (1962).

Committee on Liaison with the State Bar of Texas (standing)
Frederick C. Lowry, Austin, Chairman (1962).
Edward T. Driscoll, Midland (1964).
D. W. Carter, Dallas (1964).

[3]Dr. J. L. Cochran, San Antonio, resigned Sept. 12, 1961.
[4]Dr. J. H. McAlister, Odessa, was unable to attend two-thirds of meetings.

Vacancy (1963)[5].
J. J. Andujar, Fort Worth (1962).

Committee on Orientation (ex officio)
Chairman, Board of Trustees.
Chairman, Board of Councilors.
Chairman, Council on Medical Service and Insurance.
Chairman, Council on Medical Jurisprudence.
Chairman, Council on Public Relations and Public Service.

Board of Trustees

Advisory Committee to the Woman's Auxiliary (standing)
H. O. Padgett, Marshall, Chairman (1962).
George W. Tipton, Austin (1964).
Thomas J. Vanzant, Houston (1963)[6].

Committee on Medical History (standing)
William M. Crawford, Fort Worth, Chairman (1962).
Pat I. Nixon, San Antonio (1964).
Morris Polsky, Austin (1964).
Denton Kerr, Houston (1964).
Gerald A. King, Fort Worth (1963).
T. G. Blocker, Jr., Galveston (1963).
W. B. Russ, San Antonio (1963).
G. V. Brindley, Sr., Temple (1962).
W. D. Thames, Jr., Lufkin (1962).
L. H. Reeves, Fort Worth, Emeritus Member.
H. Reid Robinson, Galveston, Emeritus Member.

Council on Annual Session

Committee on General Arrangements for Annual Session (special)
Albert A. Tisdale, Austin, Chairman.
Frank M. Covert, III, Austin.
Samuel A. Hoerster, Austin.
C. Hal McCuistion, Austin.
Robert N. Snider, Austin.

Local Subcommittees. Chairmen (all from Austin):
Alumni and Fraternities: James N. Graham.
Entertainment: R. N. Snider.
Finance: Charles F. Pelphrey.
Halls and Lanterns: Thomas M. Haslund.
Public Lectures: G. G. Zedler.
Publicity: C. Hal McCuistion.
Scientific Exhibits: Samuel A. Hoerster.
Sports: E. K. Blewett.
Technical Exhibits: D. M. Queen.
Transportation: W. Pruett Watkins.

Committee on Memorial Services (special)
Sidney W. Bohls, Austin.

Committee on Scientific Exhibits (standing)
Jasper H. Arnold, Houston, Chairman (1964).
Thomas U. Taylor, II, Fort Worth (1964).
Vacancy (1964).
Olin B. Gober, Temple (1963).
Nathan Cedars, Stephenville (1963).
James G. Morris, Lubbock (1963)[7].
John A. Welty, Harlingen (1962)[8].

[5]Dr. C. E. Willingham, Tyler, was elected Trustee April 25, 1961.
[6]Appointed Sept. 13, 1961, to fill unexpired term of Dr. Floyd Norman, Dallas, who was elected April 25, 1961, to Council on Medical Jurisprudence.
[7]Appointed Sept. 12, 1961, to fill unexpired term of Dr. O. R. Hand, Lubbock, who was unable to attend two-thirds of meetings.
[8]Appointed July 27, 1961, to fill unexpired term of Dr. Joseph J. Klotz, Corpus Christi, who was unable to attend two-thirds of meetings.

John E. Johnson, Jr., Galveston (1962).
J. Frank Beall, Nacogdoches (1962)[9].

Council on Medical Education and Hospitals

Committee for American Medical Education Foundation (standing)
Herbert Bailey, Dallas, Chairman (1964).
H. E. Whigham, McAllen (1964).
Nelson L. Schiller, Austin (1964).
J. C. Terrell, Stephenville (1963).
Edward D. McKay, Amarillo (1963).
Vacancy (1963).
D. J. Sibley, Houston (1962).
A. L. Delaney, Liberty (1962).
S. W. Thorn, Houston (1962).

Advisers to Student American Medical Association in Texas
Hiram P. Arnold, Houston, Baylor.
George V. Launey, Jr., Dallas, Southwestern.
E. Sinks McLarty, Galveston, University of Texas Medical Branch.

Committee on Patient Care (standing)
Hal V. Norgaard, Denton (1964).
A. J. Bankhead, Tyler (1964).
G. E. Brereton, Dallas (1963).
Joseph F. McVeigh, Fort Worth (1962)[10].
G. V. Brindley, Jr., Temple (1962).

Committee on Hospital Accreditation (standing)
Ray L. Shepperd, Burnet, Chairman (1963).
Hugh H. Hanson, Houston (1964).
Hugh F. Rives, Jacksonville (1964).
Marion R. Lawler, Mercedes (1964).
Drue O. D. Ware, Fort Worth (1963).
Maynard Hart, El Paso (1962).
C. B. Marcum, Big Spring (1962).

Committee on Medical Careers (standing)
Albert McCulloh, Brady, Chairman (1963).
G. Thomas Shires, Dallas (1964).
John B. Truslow, Galveston (1964).
Walter A. Brooks, Quanah (1964).
R. L. Daily, Wichita Falls (1963).
Gordon Black, El Paso (1963).
Harry M. Shytles, Sherman (1962).
Harold Lindley, Pecos (1962).
A. Fletcher Clark, Jr., San Antonio (1962).

Committee on Liaison with Medical Schools (special)
Russell L. Deter, El Paso, Chairman.
Wendell H. Hamrick, Houston.
Frank Harrison, Dallas.
John Hundley, Fort Stockton.
L. Bonham Jones, San Antonio.
Weldon G. Kolb, La Marque.
Stephen R. Lewis, Galveston.
Stanley W. Olson, Houston.
May Owen, Fort Worth.
M. O. Rouse, Dallas.

Council on Medical Jurisprudence

Committee on Military and Veterans Affairs (standing)
Milton V. Davis, Dallas, Chairman (1962).
Norman L. West, Waxahachie, Vice Chairman (1963).
Dickson K. Boyd, Denton, Vice Chairman (1963).
James C. Whittington, Eastland (1964).
Richard H. Harrison, III, Bryan (1964).
Paul R. Meyer, Port Arthur (1964).
W. L. Lirette, Temple (1963).
J. H. Steger, Fort Worth (1962).
Joseph N. Bader, Edna (1962).

Council on Medical Service and Insurance

Committee on Association Insurance Programs (standing)
A. R. Hazzard, Austin, Chairman (1962).
A. L. Hewitt, Lubbock (1964).
C. C. Shotts, San Antonio (1964).
Mylie Durham, Jr., Houston (1963)[11].
G. J. Pruitt, Lufkin (1962).

Committee on Health Insurance (standing)
A. Rex Kirkley, Belton, Chairman (1962).
E. A. Maxwell, San Antonio (1964).
H. D. Gilliam, McAllen (1964).
Mario E. Ramirez, Roma (1964).
Ray V. Brasher, Fort Worth (1963).
Marvin Schlecte, Plainview (1963).
C. U. Callan, Rotan (1963).
Gerald Ahern, Corpus Christi (1962).
Joe Nelson, Weatherford (1962)[12].

Subcommittees of Committee on Health Insurance:

Committee on Liaison with Blue Shield (standing)
Everett C. Fox, Dallas, Chairman (1962).
Olin B. Gober, Temple (1964).
R. H. Bell, Palestine (1964).
J. B. Copeland, San Antonio (1964).
E. A. Rowley, Amarillo (1963).
Denton Kerr, Houston (1963).
Tom Bond, Fort Worth (1963).
R. W. Kimbro, Cleburne (1962).
Harvey Renger, Hallettsville (1962).

Appointees to Hospitals-Insurance-Physicians Joint Advisory Committee
G. W. Cleveland, Austin.
C. D. Bussey, Dallas.
A. Rex Kirkley, Belton.

Committee on Professional Insurance (standing)
George Barnes, Corpus Christi, Chairman (1962).
D. O. Johnson, Austin (1964).
Louis W. Breck, El Paso (1964).
Patrick H. Pappas, Lubbock (1963)[13].
A. W. Bronwell, Lubbock (1962).

Committee on Workmen's Compensation Insurance (standing)
Edward T. Smith, Houston, Chairman (1962).
Joseph T. Ainsworth, Houston (1964).
F. C. Rehfeldt, Fort Worth (1964).
Ralph E. Donnell, Jr., Abilene (1963).
J. B. Chester, Dallas (1962).

[9]Appointed Sept. 13, 1961, to fill unexpired term of Dr. Jack M. Partain, San Antonio, who was unable to attend two-thirds of meetings.

[10]Dr. Joseph M. McVeigh, Fort Worth, resigned as chairman on Aug. 11, 1961.

[11]Appointed July 19, 1961, to fill unexpired term of Dr. S. Braswell Locker, Brownwood, who was elected Fourth District Councilor on April 25, 1961.

[12]Appointed Aug. 23, 1961, to fill unexpired term of Haden E. McKay, Humble, who was elected to Council on Medical Jurisprudence April 25, 1961.

[13]Appointed Sept. 13, 1961, to fill unexpired term of Dr. John L. Otto, Galveston, who was unable to attend two-thirds of meetings.

Council on Public Relations and Public Service

Committee on Aging (standing)
F. G. Dorsey, Houston, Chairman (1964)[14].
Elizabeth Gentry, Austin (1964).
Vance Terrell, Stephenville (1964).
W. D. Gingrich, Galveston (1963).
Ernest W. Keil, Austin (1963).
Howard O. Smith, Marlin (1963)[15].
C. J. Ruilmann, Austin (1962).
Vacancy (1962)[16].
Elizabeth Thomason, Corpus Christi (1962).

Committee on Emergency Medical Service (standing)
T. E. Dodd, Austin, Chairman (1962).
James F. Fitch, McAllen (1964).
C. J. McCollum, Victoria (1964).
J. L. Johnson, Amarillo (1963).
Ralph A. Munslow, San Antonio (1963).
C. W. Castle, Liberty (1962).
James R. Schofield, Houston (1962).

Committee on Industrial Health (standing)
Robert J. Potts, Dallas, Chairman (1963)[17].
Carl A. Nau, Oklahoma City (1964).
Jesse G. Burdick, Pasadena (1964).
Kurt Lekisch, Midland (1964).
F. W. Wilson, Port Arthur (1963).
E. E. Baden, Raymondville (1963)[18].
Val C. Baird, Houston (1962).
Ralph G. Greenlee, Midland (1962).
William E. Sharp, Baytown (1962).

Committee on Public Health (standing)
Sam A. Nixon, Nixon, Chairman (1963).
Bruce H. Johnson, Loraine (1964).
Austin Hill, Houston (1964).
Ben Primer, Sr., Austin (1964).
W. V. Bradshaw, Jr., Fort Worth (1963).
J. E. Peavy, Austin (1963).
Guy T. Denton, Dallas (1962).
Lorence W. Feller, Fredericksburg (1962)[19].
Charles A. Pigford, Houston (1962)[20].

Committee on Rural Health (standing)
Curtis Haley, San Augustine, Chairman (1963).
John S. Primomo, Dilley (1964).
A. E. Mgebroff, Yoakum (1964).
David M. Shelby, Gonzales (1964).
Clifford R. Haynes, Malakoff (1963).
Vacancy (1963)[21].
J. G. Sanders, Bremond (1962).
Leta N. Boswell, Canyon (1962).
John B. Miller, El Paso (1962).

[14]Appointed chairman July 13, 1961, after resignation of Dr. Elizabeth Thomason, Corpus Christi, who remained as a committee member.

[15]Appointed Sept. 13, 1961, to fill unexpired term of Dr. Edwin E. Middleton, Abilene, who was unable to attend two-thirds of meetings.

[16]Dr. Charles L. Bloss, Dallas, was unable to attend two-thirds of meetings.

[17]Appointed chairman July 29, 1961, after resignation April 25, 1961, of Dr. Val C. Baird, Houston, who remained as a committee member.

[18]Appointed July 28, 1961, to fill unexpired term of Dr. Max E. Johnson, San Antonio, who was elected to the Council on Annual Session on April 25, 1961.

[19]Appointed Sept. 13, 1961, to fill unexpired term of Dr. Morris E. Malakoff, Laredo, who was unable to attend two-thirds of meetings.

[20]Appointed Aug. 23, 1961, to fill unexpired term created by resignation of Dr. Sam H. Gainer, San Angelo, on Aug. 8, 1960.

[21]Dr. E. W. Schmidt, Pecos, was unable to attend two-thirds of meetings.

Committee on School Health (standing)
Edwin L. Rippy, Dallas, Chairman (1964)[22].
H. C. Chancellor, Honey Grove (1964).
E. E. Addy, Jr., Cisco (1964).
M. T. Braswell, Henderson (1963).
Herbert Donnell, Waxahachie (1963)[23].
R. L. Penn, Midland (1963)[24].
Zenas W. Hutcheson, Jr., Andrews (1962)[25].
Vacancy (1962)[26].
R. K. Arnett, Lufkin (1962).

Adviser to State Board of Education
Committee on School Health

Committee on Transportation Safety (standing)
Heinrich Lamm, Harlingen, Chairman (1962).
D. R. Knapp, Kerrville (1964).
Linwood H. Denman, Lufkin (1964).
Boyd D. Alexander, Waco (1964).
William T. Payne, Odessa (1963).
William A. O'Quin, Mineral Wells (1963).
Mario Palafox, El Paso (1963).
Otto Lippmann, Austin (1962).
William H. Neil, Fort Worth (1962).

Council on Scientific Advancement

Committee on Blood Banks (standing)
Joseph M. Hill, Dallas, Chairman (1964).
John M. Travis, Jr., Beaumont (1964).
Louis Manhoff, San Antonio (1963).
Jack Abbott, Houston (1963).
Charles F. Pelphrey, Austin (1962).
George Turner, El Paso (1962).
T. P. Marinis, Midland (1962).

Committee on Cancer (standing)
Paul Gray, Corpus Christi, Chairman (1962).
R. Lee Clark, Jr., Houston (1964).
John R. Rainey, Austin (1964).
Albert W. Hartman, San Antonio (1964).
W. Q. Budd, Amarillo (1963).
A. G. Barsh, Lubbock (1963).
J. H. Childers, Dallas (1963).
Tom B. Bond, Fort Worth (1962).
Howard R. Dudgeon, Jr., Waco (1962).

Committee on Cardiovascular Diseases (standing)
George E. Clark, Jr., Austin, Chairman (1962).
W. Frank McKinley, Marlin (1964).
H. H. Latson, Amarillo (1964).
Fred D. Spencer, Jr., Brownwood (1964).
Sidney Schnur, Houston (1963).
G. S. Shepard, Lufkin (1963).
Alfred W. Harris, Dallas (1963).
George R. Herrmann, Galveston (1962).
Robert E. Leslie, El Campo (1962).

Committee on Maternal Mortality (standing)
Stewart A. Fish, Dallas, Chairman (1962).
R. P. McDonald, Fort Worth (1964).
W. H. Jondahl, Harlingen (1964).
R. E. Moon, San Angelo (1964).
Henry C. McGrede, Jr., Longview (1964).

[22]Appointed chairman July 14, 1961, after resignation of Dr. R. K. Arnett, Lufkin, who remained as a committee member.

[23]Appointed Sept. 13, 1961, to fill unexpired term of Dr. Paul H. Mitchell, Corsicana, who did not attend two-thirds of meetings.

[24]Appointed July 14, 1961, to fill vacancy created by the death of Dr. L. H. Leberman, Commerce, on Oct. 7, 1960.

[25]Appointed July 18, 1961, to fill unexpired term of Dr. P. D. Terrell, McAllen, who resigned April 25, 1961.

[26]Dr. J. Collier Rucker, Jacksonville, was unable to attend two-thirds of meetings.

Warren T. Kable, Jr., Wichita Falls (1964).
William J. McGanity, Galveston (1963).
S. H. Wills, Houston (1963).
Carl F. Moore, Jr., Austin (1963).
E. K. Blewett, Austin (1963)[27].
William E. Strozier, San Antonio (1963).
James R. Morgan, El Paso (1962).
Donald M. Gready, Houston (1962).
Fred W. Lurting, Big Spring (1962).

Committee on Mental Health (standing)
P. C. Talkington, Dallas, Chairman (1962).
A. D. Pattillo, Austin (1964).
Dorothy Wywell, Midland (1964).
P. C. Palasota, Abilene (1964).
Joseph C. Gallagher, Hearne (1963).
Robert L. Johnson, Pittsburg (1963).
Holland C. Mitchell, Waco (1963).
Ivan Bruce, Galveston (1962)[28].
Vacancy (1962)[29].

Mental Health Adviser to the State Board for Hospitals and Special Schools
P. C. Talkington, Dallas.

Committee on Nuclear Medicine (standing)
Herbert C. Allen, Jr., Houston, Chairman (1962).
J. Allen Chamberlin, Houston (1964).
Lloyd R. Hershberger, San Angelo (1964).
Elbert DeCoursey, San Antonio (1963).
J. R. Maxfield, Jr., Dallas (1963).
E. E. Anthony, Jr., Fort Worth (1962).
C. C. Shullenberger, Houston (1962).

Committee on Nutrition (standing)
N. C. Hightower, Temple, Chairman (1963).
Joe D. Nichols, Atlanta, Vice Chairman (1964).
John R. Kelsey, Jr., Houston (1964).
Andres Goth, Dallas (1964).
William J. Block, San Antonio (1963).
Walter D. Feinberg, El Paso (1963).
Ralph G. Greenlee, Midland (1962).
William Levin, Galveston (1962).
Montague Lane, Houston (1962)[29a].

Committee on Rehabilitation (standing)
Oscar Selke, Houston, Chairman (1963)[30].
Ira Budwig, El Paso (1964).
O. F. von Werssowetz, Gonzales (1964).
Alfred H. Hill, San Antonio (1964).
Robert A. Murray, Temple (1963).
John H. Bohmfalk, San Antonio (1963)[31].
Theodore A. Klecka, San Antonio (1962)[32].
Ridings E. Lee, Dallas (1962).
Vacancy (1962)[33].

Committee on Spas (standing)
Neil D. Buie, Marlin, Chairman (1963).
Edward F. Yeager, Mineral Wells (1964).
John B. Barnett, Marlin (1964).
J. R. Oates, Houston (1962).
W. K. Logsdon, Corsicana (1962).

Committee on Tuberculosis (standing)
John W. Middleton, Galveston, Chairman (1963).
Samuel Topperman, Tyler (1964).
George W. Tate, Longview (1964).
Richard F. Allison, Sanatorium (1964).
Vacancy (1963)[34].
Daniel E. Jenkins, Houston (1963).
John S. Chapman, Dallas (1962).
R. B. Morrison, Austin (1962).
Vacancy (1962)[35].

Tuberculosis Adviser to the State Board for Hospitals and Special Schools
R. B. Morrison, Austin.

Other Special Committee

Fraternal Delegate to New Mexico Medical Society
M. D. Thomas, El Paso.

Scientific Section Officers

General Practice
Guy T. Denton, Jr., Dallas, Chairman.
Herbert G. Liberty, Seguin, Secretary.

Internal Medicine
John J. Sloan, Corpus Christi, Chairman.
Robert W. Griffin, San Antonio, Secretary.

Obstetrics and Gynecology
J. Collier Rucker, Jacksonville, Chairman.
William F. McLean, Austin, Secretary.

Ophthalmology
Jack B. Lee, San Antonio, Chairman.
James H. Scruggs, Waco, Secretary.

Otolaryngology
William Skokan, Fort Worth, Chairman.
J. Patrick Moran, Corpus Christi, Secretary.

Pathology
William H. Long, Lubbock, Chairman.
Charles F. Pelphrey, Austin, Secretary.

Pediatrics
Alvis F. Johnson, Jr., Dallas, Chairman.
Ben White, Victoria, Secretary.

Public Health
Ben Primer, Sr., Austin, Chairman.
Neal M. Atkins, Waco, Secretary.

Radiology
John T. Mallams, Dallas, Chairman.
Ruskin C. Norman, San Antonio, Secretary.

Surgery
Raleigh R. White, Temple, Chairman.
Walter Hasskarl, Jr., Brenham, Secretary.

[27]Appointed Sept. 13, 1961, to fill unexpired term of Dr. Robert N. Arnold, Lubbock, who was unable to attend two-thirds of meetings.
[28]Appointed July 12, 1961, to fill unexpired term of Dr. Frank S. Schoonover, Fort Worth, who resigned April 10, 1961.
[29]Dr. Robert W. Johnson, Corpus Christi, was unable to attend two-thirds of meetings.
[29a]Appointed Aug. 28, 1961, to fill the unexpired term of Dr. John B. Barnett, Marlin, who resigned April 25, 1961.
[30]Elevated to chairman on April 26, 1961, after resignation of Dr. C. W. Tennison, San Antonio, on March 9, 1961.
[31]Appointed Sept. 13, 1961, to fill unexpired term of Dr. Albert P. Spaar, Vernon, who resigned Aug. 23, 1961.
[32]Appointed Sept. 13, 1961, to fill unexpired term of Dr. Kermit W. Fox, Austin, who was unable to attend two-thirds of meetings.
[33]Vacancy created by resignation of Dr. C. W. Tennison, San Antonio, on March 9, 1961.
[34]Dr. O. Edward Egbert, El Paso, was unable to attend two-thirds of meetings.
[35]Dr. W. R. Metzger, Corpus Christi, was unable to attend two-thirds of meetings.

NEWS
MEMORIAL
LIBRARY

Quacks

The first National Congress on Medical Quackery was held in Washington, D. C., Oct. 6-7, 1961. It was sponsored by the American Medical Association and the U. S. Food and Drug Administration. The two-fold purpose of the conference was to secure wider application of law enforcement techniques and to educate the public to the menace of medical quackery.

In 1885 the members of the Texas Medical Association were concerned with this very question of medical quackery and during the 17th annual session, Dr. B. E. Hadra offered the following resolution:

> "As the Legislature has failed to protect the people against quacks, be it Resolved, That it is the wish of the Association that every member affix to his name on his cards, signs, etc., the letters M.T.M.A. (Member Texas Medical Association), so that the people may be made acquainted with the meaning of these letters, and be enabled to discriminate accordingly."

Dr. R. P. Talley moved to postpone the resolution indefinitely and the motion prevailed by a vote of 27 ayes to 19 nays.[1]

Even though this resolution was postponed, Dr. Q. C. Smith of Austin delivered a lengthy paper on "Lycurgus and Hippocrates—Can Quackery, In or Out of Our Profession, Be Suppressed by Legislative Enactments?" The following is quoted from this paper:

> "We see the quack standing on a goods box at some street corner in Boston, Chicago or Houston —in 'protected and elevated' and in free medicine States alike—surrounded by the great unwashed pouring forth his jargon of incoherent gibberish, or ostentatiously driving furiously around in gilded chariot drawn by a span of matchless horses, peddling his gaudy appearances, pompous pretentions, and but little else, or sanctimoniously sneaking from house to house, cunningly defaming his betters with faint praise (so well suited for damning), or by artful innuendo, spiced with well feigned confidential affability, relates the sad taking-off of recent decedents, (none of whom were patients of his!) and in many other varied forms may this chameleon-like being be seen, for he is a wonderful animal, withstanding all climates and forms of government, developing best in quasi-refined society, but flourishing apace when 'protected and regulated," for, like the briars of the neglected potter's field, he will, in many cases, die out if left severely alone. And in regard to the matter of honorable physicians using their professional influence at home to get political place and power, or assisting in lobbying a bill through the Legislature, it seems to us that they, in so doing, must most foully smirch the fair habiliments of honorable medicine. And such a course appears more reprehensible still, when we consider that the results of such detestable action are far worse than a nullity. Of course we refer to characters, not to individuals.
>
> "But, notwithstanding all we have said against the alliance of politics and medicine, we would not have physicians, either individually or as a collective representative body, to idly sit with folded arms, stolid spectators of the monstrous impositions that are daily being perpetrated upon our unfortunate fellow-citizens—whether the imposters be 'regular, legal and protected,' or not—and regardless of the fact whether or not said unfortunates were the active or passive agents in the cause of their own injury or ruin. For we are strongly persuaded that much of the want of confidence that the common public manifest toward regular medicine, is but the legitimate result of the errors of policy or practice heretofore carried out by so-called regular practitioners. For it is only the live, intelligent, working, honorable, devoted physician, whose greatest pleasure consists in perfecting himself in the various resources of the healing art, who scorns vile tricks of venal imposters of every shade and class, who lives, morally, above all written 'ethical codes' and legal chains, whose chiefest delight is found in ceaseless effort to relieve or prevent the greatest possible amount of human suffering. Such a physician is the only true faithful representative of free honorable scientific medicine, or worthy of the confidence and esteem of his fellow-citizens."[2]

1. Texas State Medical Association Transactions, 1885, p. 27.

2. Texas State Medical Association Transactions, 1885, pp. 173-174.

Today our national, state, and local law enforcement bodies are constantly fighting to protect the public against quackery. We know that the consumer spends more than one billion dollars a year on falsely represented drugs, foods and cosmetics. Five million dollars a year is a conservative estimate of the cost of vitamins and so called health food quackery. Mr. Larrick, Commissioner of Food and Drugs, said in his news release of October 6, 1961, "The most widespread and expensive type of quackery in the U. S. today is in the promotion of vitamin products, special dietary foods, and food supplements. Millions of consumers are being misled concerning their need for such products."

There are many types of quacks, but the hardest to control are the ones with fake medical appliances, pseudo-scientists in nutrition, the self-styled lecturer on nutrition, and those who spread false claims of wonder drugs and fountain of youth cosmetics.

Be a Specialist, the Easy Way, J.A.M.A. 170:967 (June 20) 1959.

Dickie, W. R., and Hughes, N. C.: Caustic Pastes: Their Survival as Quack Cancer Remedies, Brit. J. Plast. Surg. 14:97 (July) 1961.

Freeman, J. T.: Deceptions and Fallacies in Geriatrics, J. Am. Geriatrics Soc. 8:519 (July) 1960.

Gage, E. L.: Why the Popularity of Medical Quacks and Nostrums?, West Virginia M. J. 53:315 (Aug.) 1957.

Garland, L. H.: How They Prey on Your Cancer Patients, Med. Economics 34:258 (Dec.) 1957.

Gordon, W. H.: Medical Myths: Modern Version, GP 19:160 (June) 1959.

Grant, R. N.; Wilcox, F. J.; and Bartlett, I.: Progress Against Cancer Quackery, J.A.M.A. 175:401 (Feb. 4) 1961.

Janssen, W. F.: Food Quackery—A Law Enforcement Problem, J. Am. Dietet. A. 36:110 (Feb.) 1960.

Karnofsky, D. A.: Cancer Quackery: Its Causes, Recognition and Prevention, Am. J. Nursing 59:496 (April) 1959.

Kovarik, J. L.: Cancer Quackery, Rocky Mountain M. J. 58:32 (May) 1961.

Lamme, L.: Fighting the Arthritis Promoters, GP 22:149 (Nov.) 1960.

Lamme, L.: Outwitting the Nutritional Quacks, GP 21:169 (Jan.) 1960.

Luck, B. E.: Cancer Quackery, J. Michigan M. Soc. 57:1650 (Dec.) 1958.

MacDonald, W.: Facts About 'Psychoquacks', Med. Economics 31:175 (Dec.) 1953.

Neser, A. T., and Lapinsky, G. B.: Cancer Curer's Case Book: 1. Epithelioma of the Lip, South African M. J. 32:811 (Aug. 9) 1958.

Pahlas, C. J.: The Cult of Reflexology, South Dakota J. Med. 11:366 (Sept.) 1958.

Stein, J. J.: Cancer Quackery, Am. J. Surg. 100:808 (Dec.) 1960.

Unproven Methods of Cancer Treatment, CA 11:17 (Jan.-Feb.) 1961.

Unproven Methods of Cancer Treatment. The Gerson Method, CA 11:107 (May-June) 1961.

Gifts to the Library

Dr. Carolyn M. Adlof, Three Rivers, 123 journals.

Dr. Ruth M. Bain, Austin, 456 journals.

Mrs. W. B. Black, Austin, 270 journals, mortar and pestle, 83 books.

Dr. Henry H. Blaustone, Kenedy, 33 journals, 43 books.

Dr. Leonard E. Bush, Huntsville, 9 books, 62 journals.

Dr. Albert L. Exline, Austin, 32 bound journals.

Dr. M. Allen Forbes, Jr., Austin, 13 books.

Dr. R. Maurice Hood, Austin, 29 journals, 35 reprints.

Dr. William C. King, Austin, 9 books.

Dr. Alva R. Kirkley, Belton, 133 journals.

Dr. Morris Polsky, Austin, 30 journals.

Mrs. Howard Reger, Vernon, 28 journals.

Dr. Marion L. Stahl, Austin, 101 journals.

Texas Hospital Association, Austin, 23 journals.

Dr. B. O. White, Austin, 65 journals.

Films Newly Acquired

SUPPORT DURING LABOR, sound, color, 20 min. professional. C-112

This film details techniques of giving emotional and physical support throughout normal labor. Particular attention is given to positions that promote comfort. It illustrates methods of teaching aid for medical students, nursing students, other hospital attendants, and parent education groups.

NARCOTICS: THE DECISION, sound, color, 30 min. lay. D-80

This is not a happy picture—it *is* factual. Personal stress leads the subject to experimentation with tobacco, alcohol, and barbiturates; malignant companionship (masquerading as genuine friendship) leads to marijuana and heroin. Animated sequences demonstrate the physiological havoc barbiturates, marijuana, and heroin wreak upon the body of every user. This film is highly recommended for P-TA and other groups interested in children's welfare. The film is restricted for showing to high school seniors only with an adult present.

Texas Hosts Medical Librarians

Staff members of the Texas Medical Association's Memorial Library were hostesses to 66 members of the Southern Regional Group of the Medical Library Association Oct. 20 and 21 in Austin.

The visitors were taken on a tour of the Austin State Hospital and the State Department of Health during the first day of the meeting, and heard a symposium on "Interlibrary Loans" by Mr. John Clopine, assistant chief, Library Division, Veterans Administration, Washington, D. C., and Miss Ellie Whitmore, Extramural Loan Librarian, University of Texas, Austin.

On the following day there was a panel discussion, "Public Relations and the Library," by Mr. C. Lincoln Williston, Executive Secretary of the Texas Medical Association, Austin; Miss Mildred Blake, Lovelace Foundation, Albuquerque, N. Mex.; Mrs. Mildred Crowe Langner, National Library of Medicine; and Mrs. Sarah Brown, Medical Center Library, University of Alabama, Birmingham.

After a luncheon, "Professionalism in the Library" was discussed by Dr. Robert Douglas, Director, Graduate School of Library Science, University of Texas, Austin; Dr. E. Croft Long, Associate Professor of Physiology, Duke University Medical Center, Durham, N. C.; and Miss Louise Williams, Librarian, Mississippi State Board of Health, Jackson.

Following the meeting, the librarians attended a cocktail party given by the J. A. Majors Company, and Charles W. Jarvis, D.D.S., San Marcos, was the guest speaker at a dinner in the Driskill Hotel.

Visitors represented 12 states and the District of Columbia.

New Books Received

A.M.A.: Standard Nomenclature of Diseases and Operations, ed. 5, New York, McGraw-Hill, 1961.

Anderson, W. A. D., Ed.: Pathology, ed. 4, St. Louis, C. V. Mosby, 1961.

Cherniack, R. M., and Cherniack, L.: Respiration in Health and Disease, Philadelphia, W. B. Saunders, 1961.

Convention Liaison Committee: Convention Liaison Manual, Washington, D. C., National Publishing Co., 1961.

Dripps, R. D., et al.: Introduction to Anesthesia, ed. 2, Philadelphia, W. B. Saunders, 1961.

Ellis, E. R., and Allen, G. N.: Traitor Within, Garden City, Doubleday, 1961.

Fluhmann, C. F.: Cervix Uteri and Its Diseases, Philadelphia, W. B. Saunders, 1961.

Gerletti, J. D., and Crawford, C. C.: Nursing Home Administration . . ., Downey, California, Attending Staff Association, 1961.

Katzin, H. M.: Rehabilitation of a Child's Eyes, St. Louis, 1961.

Kolmer, J. A.: Clinical Diagnosis by Laboratory Examinations, ed. 3, New York, Appleton-Century-Crofts, 1961.

Natelson, S.: Microtechniques of Clinical Chemistry, ed. 2, Springfield, Ill., Charles C Thomas, 1961.

Peers, E. A., et al.: Cassell's Spanish Dictionary, New York, Funk and Wagnalls, 1959.

Perez-Tamayo, R.: Mechanisms of Disease: an Introduction to Pathology, Philadelphia, W. B. Saunders, 1961.

Selman, J.: The Fundamentals of X-Ray and Radium Physics, ed. 3, Springfield, Ill., Charles C Thomas, 1961.

Sigerist, H. E.: A History of Medicine, vol. 2, Early Greek, Hindu and Persian Medicine, New York, Oxford, 1961.

Stedman, T. L.: Stedman's Medical Dictionary, ed. 20, Baltimore, Williams & Wilkins, 1961.

Thorek, P.: Illustrated Preoperative and Postoperative Care . . ., Philadelphia, Lippincott, 1958.

Williams, R. H., Ed.: Diabetes, New York, Hoeber, 1960.

Year Book of Medicine, 1961-1962, Chicago, Year Book Publishers, 1961.

Reader's Guide

Office Diagnosis

PAUL WILLIAMSON, M.D., 461 pages. $12.50. Philadelphia, W. B. Saunders Company, 1960.

"A book to stimulate thinking" would classify this book perhaps better than any one statement. For those who feel that medicine is a science and there is very little place left for the art and philosophy of medicine, this book will be of little use. However, for those of us who still feel that medicine cannot be reduced to punch cards, this book offers some stimulating and eventful reading.

Here is a book based on the "Common Manifestations of the Common Diseases," as it deals only with the diagnosis of common conditions. The rare and exotic is omitted, as well as any suggestions for treatment. Emphasis is placed on careful history and close observation. The author does not suggest any diagnostic procedure that cannot be carried out in any doctor's office.

It would be difficult to point out any one section of the book as being the best; however, the chapter on nervousness and anxiety, while short, is outstanding. As Dr. Williamson points out in the preface,

the reader may not always agree with everything he has to say, but the book certainly will stimulate thinking and increase your knowledge to prove him wrong. This book fills a need that in modern medical writing has been greatly neglected.

—C. M. CALLAN, M.D., Rotan.

Carcinogenesis—Mechanisms of Action: Ciba Foundation Symposium

G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.Ch., and MAEVE O'CONNOR, B.A., Eds., 336 pages. $9.50. Boston, Little, Brown and Company, 1959.

This symposium was arranged to provide an opportunity for more detailed discussion following the Sixth International Cancer Congress. Prof. A. Haddow, Chairman, spoke of the tremendous range and variety of carcinogenic agents and their initial routes of action: "There is no fundamental reason why we should not ultimately be able to decipher the process in chemical terms." The complete record of the proceedings should interest all those working in cancer research.

The Family Handbook of Home Nursing and Medical Care

I. J. ROSSMAN, M.D., Ph.D., Chief of Professional Services, Home Care Department, Montefiore Hospital, New York, and DORIS R. SCHWARTZ, R.N., Assistant Professor in Outpatient Nursing, The Cornell University-New York Hospital School of Nursing. 508 pages. $1.45. Garden City, N. Y. Doubleday & Company, Inc., 1958.

Sexual Impotence in the Male

LEONARD PAUL WERSHUB, M.D., F.A.C.S., F.I.C.S., Diplomate, American Board of Urology; Associate Professor of Urology, New York Medical College, Metropolitan Medical Center, New York. 107 pages. $5.75. Springfield, Ill., Charles C Thomas, 1959.

Succinct coverage is given to a problem encountered not infrequently, and yet not often written about. This book should be of particular interest to physicians in general practice and to those who specialize in internal medicine. The urologist and psychiatrist will also appreciate its content and the attention to both functional and organic causes of impotence.

—John P. Schneider, M.D., Austin.

Ciba Foundation Study Group No. 6: Metabolic Effects of Adrenal Hormones

Edited by G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., M.R.C.P., and MAEVE O'CONNOR, B.A. 103 pages. Boston, Little, Brown and Company, 1960.

A Synopsis of Skin Diseases

BETHEL SOLOMONS, JUN., M.A., M.D., F.R.C.P.I., Consultant Dermatologist, Chelmsford and Essex General Hospital, Herts, and Essex General Hospital, Hertford County Hospital. 249 pages. $6.75. Baltimore, The Williams & Wilkins Co., 1959.

In contrast to many so-called synopses or abbreviated texts, this book contains a remarkable amount of factual information. Verbose descriptions and bibliographies are by-passed in favor of brief, categorized data. The intent admittedly is to aid the student or to serve as a source for quick review by the busy practitioner. The vast number of entities discussed, however, may be too large and overwhelming for the intended purpose.

In general, etiologic aspects and treatment are up to date. A few obsolete and ineffective drugs and treatment methods of certain diseases are included, however. Also, the numerous recommendations for roentgen therapy should be qualified to greater degree in view of the current trend toward extreme conservatism in the use of ionizing radiation therapy.

For a well written, brief, but comprehensive synopsis of dermatology, this text is highly recommended.

—Eugene P. Schoch, Jr., M.D., Austin.

Psychoendocrinology

MAX REISS, M.D., D.Sc., Ed., Neuroendocrine Research Unit, Willowbrook State School, Staten Island, N. Y. 208 pages. $7. New York, Grune & Stratton, 1958.

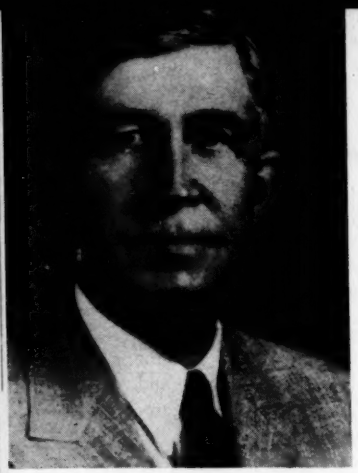
This book consists of papers presented in the Symposium on Psychoendocrinology, which was arranged within the framework of the Second International Congress for Psychiatry at Zurich. Progress in the study of endocrine function in psychopathology during the past seven years has been correlated. Both clinicians and laboratory workers, examining their therapeutic results, agreed that they would not accept any results as final, but only as a valuable link in the pathogenic analysis of mental disease.

The Changing Years: The Menopause Without Fear

MADELINE GRAY. 249 pages. $.95. Garden City, N. Y. Doubleday & Company, Inc., 1958.

Babies by Choice Or By Chance

ALAN F. GUTTMACHER, M.D., 289 pages. $3.95. Garden City, New York, Doubleday & Company, Inc., 1959.



DR. C. S. VENABLE

RECENT DEATHS

DR. C. S. VENABLE

Dr. Charles Scott Venable, 79th President of the Texas Medical Association, died in San Antonio Sept. 20, 1961. He had generalized arteriosclerosis and congestive heart failure.

Dr. Venable was born in Charlottesville, Va., June 13, 1877. His father, Charles Scott Venable, Sr., was a lieutenant colonel on the staff of General Robert E. Lee during the Civil War, and afterward was a professor of mathematics at the University of Virginia. His mother, the former Mary Southall, was descended from Virginian political leaders.

After graduation from the University of Virginia Department of Medicine, Charlottesville, in 1900, he married Miss Madge J. Bonney before continuing his medical studies in clinics in London, Paris, Austria, and Dublin. Upon his return to the United States, he received an appointment as instructor in the medical department at his alma mater.

In 1907, Dr. Venable traveled to San Antonio for a visit, and liked it so well that he never returned to Virginia to live. He began his practice there in 1908, specializing in surgery and gynecology. In 1909, he built the Lee Surgical Hospital, which operated for nearly 20 years. In 1911, he was instrumental in the establishment of the San Antonio Free Clinic, which was the first institution of its kind in southwest Texas. In 1914, he and a group of friends hired the first public health nurse to serve in San Antonio and Southwest Texas.

During World War I, Dr. Venable was co-organizer, with General M. W. Ireland of the Army Medical Corps, of the San Antonio Red Cross chapter, one of the first large, wartime organizations of that sort. He was medical officer and chief of orthopedics in an overseas base hospital, and came home as a lieutenant colonel.

In 1925, Mrs. Venable died; four daughters had been born from this marriage. Seven years later, Dr. Venable married Miss Eleanor A. Herff of San Antonio.

Medicine was Dr. Venable's principal avocation as well as vocation, his friends report: "When he was not practicing medicine, he was teaching it, writing about it, or doing experimental work. He is one of the many men who have proven beyond doubt that excellent, important research can be done while carrying on an extremely busy practice . . ."

Dr. Venable was a prolific writer, and was co-author with Dr. Walter G. Stuck, San Antonio, of a book, "The Internal Fixation of Fractures," published in 1947 in the United States and Canada. The authors, both specialists in the field, introduced vitallium, an especially adaptable alloy, into the field of bone surgery. Dr. Venable was also the author of some 35 articles on medical subjects.

Another of his innovations was an adjustable traction splint for use in transportation of patients suffering from fracture of the extremities. Because of the wartime metal shortage, it was made of wood.

While serving as chairman of the Texas Medical Association's Fracture Committee, Dr. Venable and his group prepared a series of articles on first aid for the layman which was published in newspapers in 16 states. He was interested in the treatment of trauma, and as a member of the Texas Safety Council, he helped draft, in 1943, a state law which required ambulances to be equipped with necessary safety and first aid devices and to be served by personnel trained in first aid.

Never one to keep his opinions to himself, Dr. Venable in 1952 exploded in the San Antonio press about certain "wildcat" ambulance services in that city, charging that to these services, a dead body was worth more than a live patient delivered to a hospital. There was much uproar, but services improved.

Always active in the affairs of organized medicine, Dr. Venable was president of the Bexar County Medical Society in 1930. His offices in the Texas Medical Association included Councilor of the Fifth District, 1916-1925, secretary of the Section on Surgery, 1920, and President of the Association, 1943. In 1955, he was elected an honorary member, and emeritus membership was conferred on him the following year.

During his presidency, the wartime conditions were such that the annual session was canceled, and only the House of Delegates met. In meeting the threat of socialized medicine, Dr. Venable made one of his finest contributions to the Association. He appointed the first Public Relations Committee and set up a speakers' bureau of doctors to inform the public of medicine's point of view. Under his

leadership, the House approved in principle prepayment medical and hospital care plans in the interest of the lower income group.

He was one of the founders, in 1922, and later president of the Southern Surgical Association. He was a past president of the American Association for the Surgery of Trauma, and a member of the American Academy of Orthopedic Surgeons. For many years, he was a consultant in general surgery at Brooke Army Hospital, and was honorary professor of surgery at the University of Texas Medical Branch.

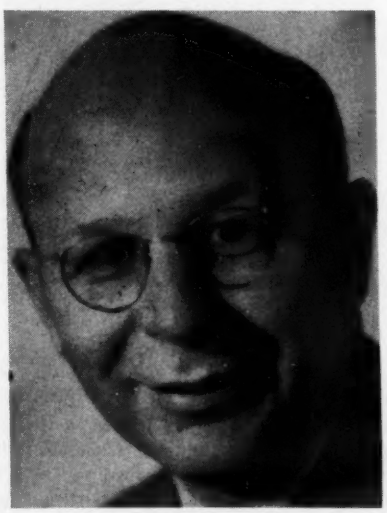
Dr. Venable is survived by his widow, three daughters, Mrs. Polly Dulaney, Purcellville, Va.; Mrs. Page Parker, San Antonio, and Mrs. Natalie Mitchell, Tulsa; a sister, Mrs. Raleigh Minor, Charlottesville; 11 grandchildren, and 7 great-grandchildren.

DR. G. H. MERRITT

Dr. George Hubert Merritt, Uvalde, an honorary member of the Texas Medical Association, died Sept. 17, 1961, in a Kerrville hospital.

Dr. Merritt had been active in his practice since 1926 and was a past president and secretary of the Medina-Uvalde-Maverick-Val Verde-Edwards-Real-Kinney-Terrell-Zavala Counties Medical Society. Active in medical and civic affairs, he also was a member of the American Medical Association, the Methodist Church, and the Masonic Lodge.

In August, 1954, he was stricken with paralytic poliomyelitis, which impaired use of his limbs and forced him to retire.



DR. G. H. MERRITT

Dr. Merritt was the son of a doctor, the late Dr. John Westly Merritt, and Maggie (Floyd) Merritt. He was born June 20, 1896, in Bertram, Texas, and attended public schools in Harper, Texas. After earning his first degree from Southwestern University, Georgetown, in 1918, he took his medical training at the University of Texas Medical Branch, Galveston. In 1926, he interned at the El Paso County Hospital. Later, he took several postgraduate courses in Chicago, New Orleans, and other medical centers, and served as an instructor in postgraduate studies in 1928.

As a general practitioner, he opened his office in Uvalde in 1928, and practiced there until 1954. In 1930, Dr. Merritt built Uvalde's first hospital. In 1936, a larger hospital was built which Dr. Merritt and his staff maintained for many years.

Dr. Merritt was married Nov. 16, 1945, to Mrs. Mary L. Cowsert of Uvalde.

Survivors are Mrs. Merritt of Uvalde, one son, George H. Merritt, Jr., Houston, and a step-son, Pat Cowsert, Rocksprings.

DR. E. STIRLING

Dr. Earl Stirling died at his home in Sulphur Springs, Texas, on Sept. 23, 1961, after an illness of several months. Until ill health forced him to give up his medical practice a few months before his death, "Dr. Earl", as he was called by his patients, was the city's oldest practicing physician.

Born Sept. 14, 1885, in Weaver, Texas, he was the son of Dr. W. C. Stirling and Mrs. Pearl (Hargrove) Stirling. The family moved to Sulphur Springs in 1891 when the elder Dr. Stirling began his practice there.

Dr. Earl Stirling attended Sulphur Springs public schools, and received his medical training at Tulane University of Louisiana School of Medicine, New Orleans. Following his graduation in 1910, he returned to his home town to join his father in practice. In 1960, he was presented an honorary degree by Tulane on the 50th anniversary of his graduation.

Dr. Stirling was an active member of the Texas and American Medical Associations through the Hopkins-Franklin Counties Medical Society. He served four terms as its secretary and four terms as its president. He also was an active member of the First Presbyterian Church and was on the governing board of elders for 34 years, a position which his father had held before him. Dr. Stirling was a charter member of the Sulphur Springs Lions Club.

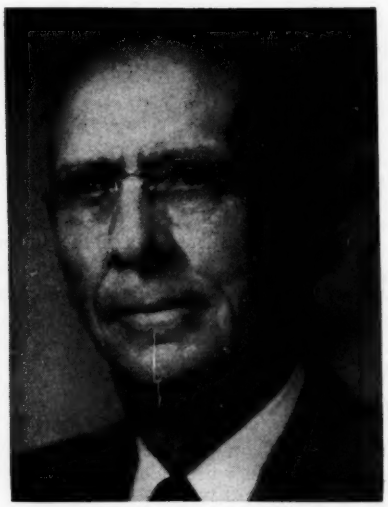
He is survived by his widow, the former Miss Hazelle Hopkins; two sons, Dr. Earl Hopkins Stirling, Galveston, and Commander Harold C. Stirling,

U.S.N. (Ret.), Belfair, Wash.; and two grandsons, James Hargrove Stirling and William Prosser Stirling, Galveston.

Other survivors include a sister, Mrs. D. B. Burnett, Tiptonville, Tenn.; and two brothers, Carl Stirling, Sulphur Springs, and Dr. W. Calhoun Stirling, Washington, D. C.

DR. E. P. BUNKLEY

Dr. E. P. Bunkley of Stamford, an honorary member of the Texas Medical Association, died in a local hospital July 26. He had been stricken with a heart attack several days prior to his death.



DR. E. P. BUNKLEY

Dr. Bunkley was born in Farmersville, Texas, November 22, in 1882, and was graduated from Tulane University School of Medicine in 1907. He then moved to Stamford and entered practice with an uncle, the late Dr. W. N. Bunkley. Later, he and two other local physicians built the Stamford Sanitarium, and in connection with it they operated a school of nursing from 1910 until 1939. In 1946, Dr. Bunkley retired from active practice.

Dr. Bunkley had been a member of the Texas Medical Association through the Baylor-Knox-Haskell Counties Medical Society almost continuously since 1908, and was elected to honorary membership in 1951. He also was a member of the American Medical Association and was a past president of the Texas Surgical Society.

Active also in civic affairs, Dr. Bunkley served two terms as mayor of Stamford and had served as president both of the Chamber of Commerce and the Rotary Club.

Survivors are Mrs. Bunkley, one son, Dr. Tom Bunkley, two daughters, Mrs. George Pryor, Jr., and Mrs. G. C. Carothers, Jr., all of Stamford; one sister, Mrs. Tom Elliott, Fort Worth; and two brothers, V. F. and Walter Bunkley, both of Stamford; and six grandchildren.

DR. E. H. VAUGHN

Dr. Edgar Howell Vaughn, a long-time Tyler physician and civic leader, died July 27, 1961, in a local hospital. He had been ill for some time.

Dr. Vaughn had been a member of the Texas Medical Association continuously since 1905 through the local county medical society. At the time of his death, he was a member and past president of the Smith County Medical Society. He had served in 1926 as chairman of the Section on Eye, Ear, Nose, and Throat, and was Councilor for the Eleventh

DR. E. H. VAUGHN

District in 1930. In a recent letter to the Texas Medical Association, Dr. Vaughn stated that he had attended all except three annual sessions of the Association since his graduation from medical school in 1903. He retired in 1958, turning his practice over to his son, Dr. James M. Vaughn.

The elder Dr. Vaughn was born February 22, 1876, at Union Springs, Ala. He attended public schools, and in 1896 he taught school near his boyhood home. He then borrowed $25 and came to visit his older brother in Peoria, Texas. He liked the state, and decided to stay. He found a job teaching at the Oak Valley school near Aquilla, and later attended teachers' college in Denton. In 1899, he entered the University of Texas Medical Branch, Galveston, and worked his way through school, being graduated in 1903.

Dr. Vaughn's first medical position was as house surgeon for the Texas and Pacific Railroad in Marshall; he remained there four years. He then began private practice in Waxahachie, and for nearly three years he saw patients day and night, making his calls in a buggy.

Realizing a desire to specialize, Dr. Vaughn traveled to Chicago, where he studied ophthalmology and otolaryngology. When he returned to Texas, it was to Fort Worth to specialize there two years before locating his practice permanently in 1912 in Tyler. Later, he took other postgraduate work in New York, New Orleans, and Vienna.

Dr. Vaughn was a Fellow of the American College of Surgeons, and a member of the American Medical Association, the Southern Medical Association, American Academy of Ophthalmology and Otolaryngology, Pan American Eye, Ear, Nose, and Throat Society, and the American Medical Association of Vienna.

Active in business and civic areas, Dr. Vaughn was chairman of the executive committee and was inactive vice president of the Peoples National Bank of Tyler, and had been president of the First Federal Savings and Loan Association continuously since 1928. He was chairman of the board of trustees of the Peoples Life Insurance Company and was director emeritus of the General American Oil Company of Texas. In addition, he was a director of the Lone Star Steel Company and the Sabine Royalty Company of Dallas.

A leader in community life, he was a member of the First Baptist Church, the Tyler Rotary Club, the Tyler Club, the East Texas Farm and Ranch Club, and the Medical Center Hospital Association of Tyler.

Survivors are Mrs. Vaughn of Tyler (formerly Miss Lillye Mae Miller of Blooming Grove); a son, Dr. James M. Vaughn, Tyler; one brother, C. A. Vaughn, Corsicana; two sisters, Mrs. Sally Waddington, Fort Worth, and Mrs. Clayton McMasters, Kingstone Heights, Fla.; and two grandchildren.

★ Coming Meetings

American Medical Association, Clinical Meeting, Denver, Nov. 26-30, 1961. Dr. F. J. L. Blasingame, 535 N. Dearborn, Chicago 10, Exec. Vice-Pres.

Texas Medical Association, Austin, May 12-15, 1962. C. L. Williston, 1801 N. Lamar, Austin, Exec. Sec.

Current Meetings

NOVEMBER

American College of Chest Physicians, Denver, Nov. 25-27, 1961. Mr. M. Kornfeld, 112 E. Chestnut, Chicago 11, Exec. Dir.

American Public Health Association, Detroit, Nov. 13-17, 1961. Dr. B. F. Mattison, 1790 Broadway, New York 19, Exec. Sec.

Radiological Society of North America, Chicago, Nov. 26-Dec. 1, 1961. Mr. M. D. Frazer, 3145 O Street, Lincoln, Neb., Sec.

Texas State Board of Medical Examiners, Fort Worth, Nov. 30-Dec. 2, 1961. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Sec.

DECEMBER

American Academy of Dermatology and Syphilology, Chicago, Dec. 2-7, 1961. Dr. R. R. Kierland, Mayo Clinic, Rochester, Sec.

Southern Surgical Association, Hot Springs, Va., Dec. 5-7, 1961. Dr. J. D. Martin, Jr., Emory U., Atlanta 22, Ga., Sec.

Texas Academy of Internal Medicine, Houston, Dec. 2-3, 1961. Dr. S. C. Arnett, Jr., 2609 19th, Lubbock, Sec.

Texas Division, American Cancer Society, Fort Worth, Dec. 7-8, 1961. Mr. C. W. Reimann, 5014 Bull Creek Rd., Austin 3, Exec. Sec.

Texas Rheumatism Association, Houston, Dec. 1, 1961. Dr. J. Kemper, 6655 Travis, Houston, Sec.

Texas Society on Aging, San Antonio, Dec. 1-2, 1961. Mrs. W. B. Ruggles, 3701 Stratford, Dallas, Sec.

Private Clinics and Hospitals, Houston, Dec. 2-3, 1961. Mr. B. J. Warren, Deaton Hospital, Galena Park, Sec.

Texas State Board of Examiners in Basic Sciences, Galveston, Dec. 7-9, 1961. Mrs. Maria P. Hathaway, 1012 State Office Bldg., Austin, Exec. Sec.

National and Regional

American Academy of Allergy, Denver, Feb. 5-7, 1962. Mr. J. O. Kelley, 756 N. Milwaukee St., Milwaukee 2, Exec. Sec.

American Academy of General Practice, Las Vegas, April 6-13, 1962. Mr. M. F. Cahal, Volker Blvd., at Brookside, Kansas City 12, Exec. Sec.

American Academy of Ophthalmology and Otolaryngology. Dr. W. L. Benedict, 15 2nd St. S.W., Rochester, Minn., Sec.

American Academy of Pediatrics, New York, April 30-May 2, 1962. Dr. E. H. Christopherson, 1801 Hinman, Evanston, Ill., Exec. Dir.

American Association of Genito-Urinary Surgeons, Skytop, Penn., May 9-11, 1962. Dr. W. J. Engel, 2020 E. 93rd, Cleveland 6, Sec.

American Association of Obstetricians and Gynecologists. Dr. C. L. Randall, 216 Summer, Buffalo 22, Sec.

American Association of Plastic Surgeons, Del Monte, Calif., May 6-10, 1962. Dr. T. D. Cronin, 6615 Travis, Houston 25, Sec.

American Association for Thoracic Surgery, St. Louis, April 16-18, 1962. Dr. H. T. Bahnson, Johns Hopkins Hosp., Baltimore 5, Sec.

American Cancer Society. Mr. G. Whittlesey, 521 W. 57th, New York 19, Sec.
American College of Allergists, Minneapolis, April 1-6, 1962. Mr. E. Bauers, 2160 Rand Tower, Minneapolis, Exec. Vice-Pres.
American College of Gastroenterology, Chicago, Oct. 28-31, 1962. Mr. D. Weiss, 33 W. 60th, New York 23, Exec. Dir.
American College of Obstetricians and Gynecologists, Chicago, April 2-5, 1962. Mr. D. F. Richardson, 79 W. Monroe, Chicago 3, Exec. Sec.
American College of Physicians, Philadelphia, April 9-13, 1962. Dr. E. C. Rosenow, Jr., 4200 Pine, Philadelphia 4, Exec. Dir.
American College of Radiology, New York, Feb. 7-10, 1962. Mr. W. C. Stronach, 20 N. Wacker, Chicago 6, Exec. Dir.
American College of Surgeons, Memphis, Tenn., March 26-28, 1962. Dr. W. E. Adams, 40 East Erie, Chicago, Sec.
American Congress of Physical Medicine and Rehabilitation, New York, Aug. 27-31, 1962. Dorothea C. Augustin, 30 N. Michigan, Chicago 2, Exec. Sec.
American Dermatological Association, Chandler, Ariz., March 28-31, 1962. Dr. Wiley M. Sams, 308 Ingraham Bldg., Miami 32, Sec.
American Gynecological Society, Hot Springs, Va., May 31-June 2, 1962. Dr. C. J. Lund, 260 Crittenden Blvd., Rochester 20, N. Y.
American Heart Association, Cleveland, Oct. 26-28, 1962. Mr. W. F. McGlone, 44 E. 23rd, New York 10, Sec.
American Hospital Association, Chicago, Sept. 17-20, 1962. Mr. M. J. Norby, 840 North Lake Shore Dr., Chicago 11, Sec.
American Neurological Association, Atlantic City, June 18-20, 1962. Dr. M. D. Yahr, 710 W. 168th, New York 32, Sec.
American Proctologic Society, Miami, Fla., April 30-May 3, 1962. Dr. N. D. Nigro, 7815 East Jefferson, Detroit 1, Sec.
American Society of Anesthesiologists, New York, Oct. 21-26, 1962. Mr. J. W. Andes, 515 Busse Highway, Park Ridge, Ill., Exec. Sec.
American Society of Clinical Pathologists. Miss Eleanor F. Larson, 445 Lake Shore Drive, Chicago 11, Mgr.
American Surgical Association. Dr. W. Altemeier, Cincinnati General Hospital, Cincinnati 29, Sec.
Association of American Physicians and Surgeons, Inc., Chicago, April 6-7, 1962. Mr. H. E. Northam, 185 N. Wabash, Chicago 1, Exec. Dir.
International College of Surgeons, U. S. Chapter. Dr. R. T. McIntire, 1516 Lake Shore Dr., Chicago, Exec. Dir.
South Central Association of Blood Banks, Fort Worth, 1962. L. R. Guy, Ph.D., 2927 Maple, Dallas 4, Sec.
Southern Medical Association. Mr. R. F. Butts, 2601 Highland, Birmingham 5, Exec. Sec.
Southern Psychiatric Association, Galveston, Oct. 7-9, 1962. Dr. Sullivan Bedell, 1103 Barrs St., Jacksonville, Fla., Sec.
Southwest Allergy Forum, Memphis, April 14-17, 1962. Dr. D. Goltmann, Lebenheur Children's Hospital, 848 Adams Avenue, Memphis, Tenn.
Southwest Regional Cancer Conference. Mrs. I. F. Ball, Westchester House, Fort Worth, Sec.
Southwestern Medical Association, Albuquerque, Oct. 18-20, 1962. Dr. Grady Morrow, 1900 N. Oregon, El Paso, Sec.
Southwestern Society of Nuclear Medicine. Dr. J. R. Maxfield, Jr., 2711 Oak Lawn, Dallas, Sec.
Southwestern Surgical Congress, Albuquerque, N. Mex., April 2-5, 1962. Dr. R. B. Howard, 544 Pasteur Bldg., Oklahoma City 3, Okla.
Tri-State Medical Assembly. Dr. J. W. Wilson, Jr., 940 Margaret Place, Shreveport, Sec.
United States-Mexico Border Public Health Association. Dr. U. Blanco, El Paso, Sec.

State

Texas Academy of General Practice, Fort Worth, Oct. 21-24, 1962. Mr. D. C. Jackson, 1905 N. Lamar, Austin, Exec. Sec.
Texas Air-Medics Association, Austin, 1962. Dr. C. F. Miller, Box 1338, Waco, Sec.
Texas Association for Mental Health. Mrs. L. Marcus, 3525 Arrowhead, Dallas, Sec.
Texas Association of Obstetricians and Gynecologists, Dallas, February 23-24, 1962. Dr. H. W. Savage, 815 Fifth Ave., Ft. Worth, Sec.
Texas Association of Public Health Physicians. Dr. Elizabeth Gentry, 1313 Sabine, Austin, Sec.
Texas Chapter, American Academy of Pediatrics. Dr. W. W. Kelton, Jr., 108 W. 30th, Austin, Sec.
Texas Chapter, American College of Chest Physicians, Austin, May 13, 1962. Dr. Donald L. Paulson, 3710 Swiss Ave., Dallas.
Texas Club of Internists. Dr. T. H. Harvill, Medical Arts Bldg., Dallas 1, Sec.
Texas Dermatological Society. Dr. D. S. Blair, 1609 Medical Arts Bldg., Dallas, Sec.
Texas Diabetes Association, Austin, May 13, 1962. Dr. John W. Chriss, 2436 Morgan, Corpus Christi, Sec.
Texas Heart Association. Mr. E. T. Guy, 404 Jesse H. Jones Library Bldg., Houston 25, Exec. Sec.
Texas Industrial Medical Association, Austin, May 13, 1962. Dr. R. E. Joyner, Box 471, Texas City, Sec.
Texas Neuropsychiatric Association, Austin, May 12, 1962. Dr. E. I. Bruce, Jr., 1014 Strand, Galveston, Sec.
Texas Ophthalmological Association, Austin, May 14-15, 1962. Dr. Harold Hunt, 150 Eighth St., S.E., Paris, Sec.
Texas Orthopedic Association, Austin, May 14, 1962. Dr. Margaret Watkins, 3503 Fairmount, Dallas, Sec.
Texas Otolaryngological Association. Dr. Louis E. Adin, Jr., 3707 Gaston, Dallas, Sec.
Texas Pediatric Society, Fort Worth, Sept. 21-22, 1962. Dr. C. E. Gilmore, 811 Bonham, Paris, Sec.
Texas Physical Medicine and Rehabilitation Society. Dr. O. Selke, Medical Professional Bldg., Houston, Sec.
Texas Proctologic Society, San Antonio, Feb. 15, 1962. Dr. T. Melton, 636 Hermann Professional Bldg., Houston, Sec.
Texas Public Health Association, Houston, Feb. 11-14, 1962. J. N. Murphy, Jr., P. O. Box 5192, Austin 31, Sec.
Texas Radiological Society, Austin, Jan. 19-20, 1962. Dr. R. P. O'Bannon, 1217 W. Cannon, Ft. Worth, Sec.
Texas Society of Anesthesiologists, Austin, May 12, 1962. Dr. E. L. Slataper, Medical Towers, Houston, Sec.
Texas Society of Athletic Team Physicians, Austin, April, 1962. Dr. L. Levy, Ft. Worth, Sec.
Texas Society of Gastroenterologists and Proctologists, Austin, May, 1962. Dr. Belton Griffin, 6648 Fannin, Houston, Sec.
Texas Society of Ophthalmology and Otolaryngology. Dr. O. Suehs, 14 Medical Arts Square, Austin, Sec.
Texas Society of Pathologists, Inc., Galveston, last week of Jan., 1962. Dr. V. A. Stembridge, Southwestern Medical School, Dallas, Sec.
Texas Society of Plastic Surgeons, Austin, May 11-12, 1962. Dr. R. O. Brauer, 6615 Travis, Houston, Sec.
Texas Surgical Society, Galveston, April 1-3, 1962. Dr. W. B. King, Jr., 2320 Columbus Ave., Waco, Sec.
Texas Traumatic Surgical Society, Austin, May 13, 1962. Dr. J. C. Long, 805 W. 8th, Plainview, Sec.
Texas Tuberculosis Association, El Paso, March 29-31, 1962. Mrs. J. R. Walton, Jr., 1407 Andrews Hwy., Midland, Sec.
Texas Urological Society, Houston, February, 1962. Dr. N. F. McDonald, 915 Medical Arts Bldg., Houston 15, Sec.

District

First District Society, Pecos, February, 1962. Dr. G. L. Black, 1501 Arizona, El Paso, Sec.
Second District Society. Dr. Broadway Broadrick, Box 111, Big Spring, Sec.
Third District Society, Pampa, Sept., 1962. Dr. H. F. Johnson, 2308 W. 8th, Amarillo, Sec.
Fifth and Sixth Districts Society. Dr. S. H. Ware, Jr., 3154 Reid Drive, Corpus Christi, Sec.
Seventh District Society. Dr. R. Lucas, 502 W. 13th, Austin, Sec.
Eighth District Society. Dr. H. Davis, 120 Barracuda, Galveston, Sec.
Ninth District Society.
Tenth District Society. Dr. I. M. Richman, 3280 Fannin, Beaumont, Sec.
Eleventh District Society. Tyler, Spring, 1962. Dr. F. Verheyden, 400 S. Ragsdale, Jacksonville, Sec.
Twelfth District Society, Temple, Jan. 13, 1962. Dr. J. Dunlap, 2320 Columbus, Waco, Sec.
Thirteenth District Society. Dr. R. D. Moreton, 1217 W. Cannon, Ft. Worth, Sec.
Fourteenth District Society.
Fifteenth District Society. Dr. J. S. Leeves, Naples, Sec.

Clinics

Blackford Memorial Cancer Lectures. Dr. A. O. Jensen, Suite N-1, Medical Center, Denison, Chm.
Dallas Southern Clinical Society Conference, Dallas, March 19-21, 1962. Dr. C. M. Cole, 1421 Medical Arts Bldg., Dallas, Sec.
International Medical Assembly of Southwest Texas, San Antonio, Jan. 29-31, 1962. S. E. Cockrell, Jr., 202 W. French Place, San Antonio, Exec. Sec.
New Orleans Graduate Medical Assembly, New Orleans, March 12-15, 1962. Dr. Mannie D. Paine, Jr., 1430 Tulane Ave., New Orleans 12, Exec. Sec.
North Texas-Southern Oklahoma Fall Clinical Conference. Dr. F. J. Lee, 1300 8th, Wichita Falls, Chm.
Oklahoma City Clinical Conference. Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Exec. Sec.
Postgraduate Medical Assembly of South Texas. Mrs. W. H. Dahme, 412 Jesse H. Jones Library Bldg., Houston 25, Exec. Sec.